

3M Industrial Adhesives and Tapes

# 3M Metal Working market - applications and products.

Thin Gauge Metals  
**Start Here**

# Thin Gauge Metals

◀ What are Thin Gauge Metals?

Disclaimer

## Main Menu

**Materials  
and Markets  
Overview**

**Applications**

**3M  
Products**

**Resources**

## Materials Overview

Primary Market Segments

Application Matrix

Materials Definition

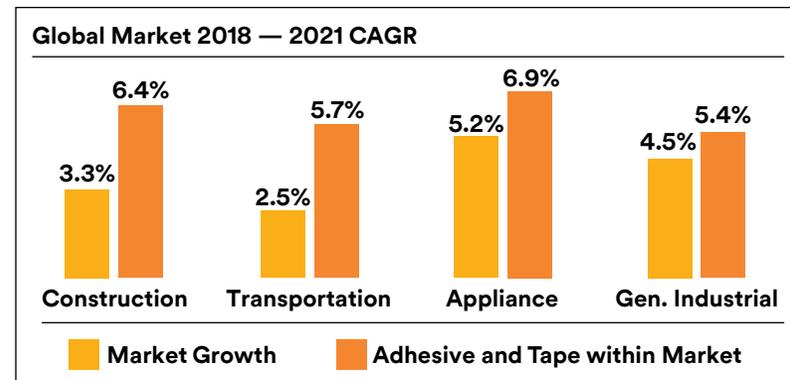
Applications Menu

### Market Opportunity

3M adhesives and tapes are easy-to-use and effective, providing quick bonding solutions that outperform many welding and mechanical fastener applications. Thin Gauge Metals aligns to 3M value proposition — customers want high performance, efficiency and quality.

### Market Trends and Challenges

- ✓ For many applications, there are performance, weight and efficiency advantages to using precision thin gauge metals
- ✓ It is important to protect cut metal edges and ends and reband or bundle any remaining material for transport and storage
- ✓ Adhesives and tapes sales growth is outpacing the overall growth in many segments



SOURCE: BCC Research: Adhesive and Adhesive Applying Equipment: Technologies and Global Markets

### Advantages when using tapes and adhesives comparing indirect alternatives

<b>Design flexibility</b>	More bonding options with dissimilar materials
<b>Aesthetics</b>	Smooth, cleaner appearance that fastens
<b>Durability</b>	Strong bonds that withstand vibration and impact
<b>Productivity</b>	No drilling or finishing work requiring fewer skilled workers
<b>One-step Seal</b>	Product solutions that seal as they bond
<b>Light Weighting</b>	Stress distribution over bond line allows lighter, thinner substrates

## Primary Market Segments

3M products can help increase production throughput that can result in decreased labour hours and lower manufacturing costs.

### Priority Segments and Applications

Materials Overview

Application Matrix

Materials Definition

Applications Menu

HVAC



Window/Door /Architecture



Elevator



Metal Fabrication



Electro Chemical Coating Shops



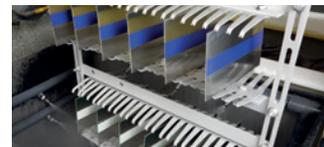
Metal Service Centres



Metal Furniture



Electroplating/ Anodising Shops



Transportation



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## Application matrix

Materials Overview

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Common Applications by Industry	Primary Metal/ Metal Centres	Metal Fabricators	Elevators	Metal Furniture	Electroplating/ Anodising Shops	Metal Finishing/ Liquid Paint Masking	HVAC/ Architectural Markets	Transportation
Secure and Protect	✓	✓	✓	✓			✓	✓
Chemical Processing and Coating			✓	✓	✓			✓
Liquid Paint Masking				✓		✓		✓
Panel-to-Frame		✓	✓	✓			✓	✓
Stiffener-to-Panel		✓	✓	✓		✓	✓	✓
Insulation		✓	✓				✓	✓
Decorative Metal Attachment		✓	✓	✓			✓	✓
Sealing and Gasketing			✓	✓			✓	✓
View Port Window			✓				✓	

## Materials Definition

**Materials Overview**

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## Thin Gauge Metals

[pure metals and alloys]

- a) Types of metals:** Titanium and Titanium Alloys; Silicon Steels; Stainless Steel and Its Alloys; Non Grain Oriented Electrical Steel (NGOES); Nickel Irons and Soft Magnetics; Nickel and Its Alloys; Inconel; Grain Oriented Electrical Steel (GOES); Copper and Copper Alloys; Carbon Steel; Arnon Electrical Steel; Magnetic Alloys; Aluminium and Its Alloys
- b) Available forms:** Includes foil, strip, tubing, mesh, fin, panel, plate and sheet
- c) Thickness:** 0.0002 in. to 0.031 in.

## Applications Menu

Secure and Protect	Chemical Process and Coating	Liquid Paint Masking	Panel-to-Frame	Stiffener-to-Panel	Insulation	Decorative Metal Attachment	Sealing and Gasketing	View Port Window	Floor and Safety Marking
Bundling/Strapping	Anodising	Liquid Paint Masking	Roof Panel Attachment	Stiffener-to-Panel	Insulated Panel Bonding	Kick/Name/Face Plates	Gasket	View Port Window	Floor and Safety Marking
Coil Tabbing/Edge Protection	Electroplating		Wall Panel Attachment		Insulation Attachment	Trim Attachment	Seam Seal		
Splicing/Roll Starting	Powder Coating		Floor Panel Attachment				Roof Seal		
Surface Protection	Plasma Spray								

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## Secure and Protect: Bundling/Strapping

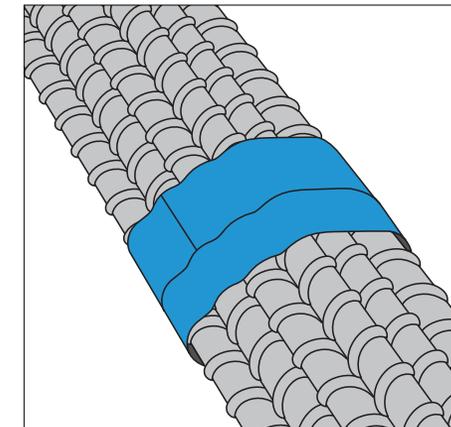


Scotch® Clean Removal Strapping Tape 8899HP

Go To

### Application Profile

<b>Application Description</b>	High strength tapes are applied to temporary bundle and wrap metal parts, rods, pipes, tubing, wires, angle metal, etc. to hold the parts together securely during storage and transportation.
<b>Key Application Requirements</b>	<ul style="list-style-type: none"><li>• Strong holding power</li><li>• Higher tensile and adhesion strength</li><li>• Security and safety</li><li>• Ease of use</li><li>• Nick and scratch resistance</li><li>• Clean removal</li></ul>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"><li>• Adhesion to oily surfaces (MSR's)</li><li>• Clean removal from metal substrates</li><li>• Speed of applying tape</li><li>• Reduce cleanup</li><li>• Cut resistant</li></ul>



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Tapes for Metal Processing



App Profile: Bundling

Alternative options

Scotch® Filament Tape 898MSR

Scotch® Bi-Directional Filament Tape 8959

3M™ Industrial Protective Film 7070UV

Scotch® Filament Tape 880MSR

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## Secure and Protect: Coil Tabbings/Edge Protection

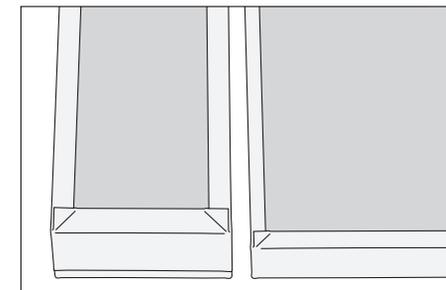
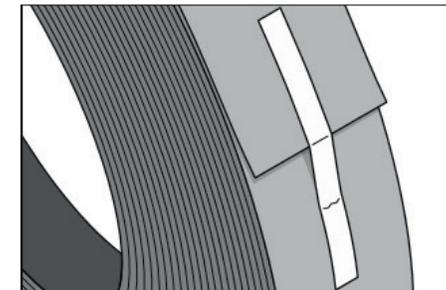


Scotch® Filament Tape 898MSR

Go To

### Application Profile

<b>Application Description</b>	After manufactured, thin gauge metal is rolled into a coil and cut down to more narrow coils. Use high strength tape to keep ends from opening and uncoiling. Additionally, bar stock can be easily and transported and stored using bundling methods.	
<b>Key Application Requirements</b>	<ul style="list-style-type: none"><li>• Strong holding power</li><li>• Higher tensile and adhesion strength</li><li>• Security and safety</li></ul>	<ul style="list-style-type: none"><li>• Ease of use</li><li>• Production speed</li><li>• Clean removal</li></ul>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"><li>• Improved substrate yield</li><li>• MSR's adhere to lightly oiled metals to reduce cleaning metal prior to tabbing</li></ul>	<ul style="list-style-type: none"><li>• Improved application speed vs. banding</li><li>• Reduce cleanup</li><li>• Cut resistant</li></ul>



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Tapes for Metal Processing



App Profile: Coil Tabbings



App Profile: Edge Protection

## Secure and Protect: Splicing/Roll Starting

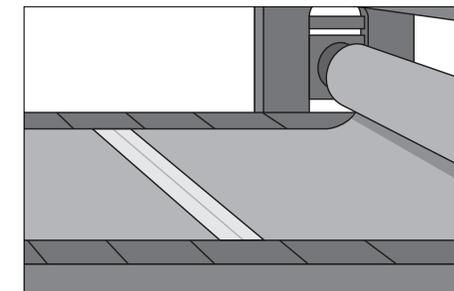
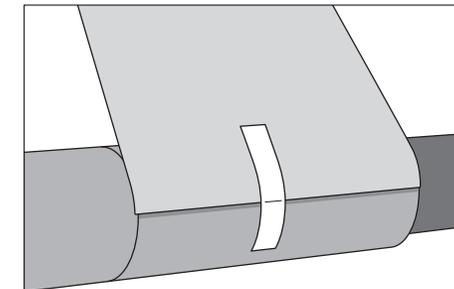


Scotch® Bi-Directional Filament Tape 8959

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### Application Profile

<b>Application Description</b>	At primary metal and service centres tape is applied for temporary overlap splices on metal sheets, holding metal to prevent potential settings. Used in roll starting, the tape is applied to metal coils and core which could be paper or metal to hold the start of the coil.	
<b>Key Application Requirements</b>	<ul style="list-style-type: none"><li>• Strong holding power</li><li>• High tensile and adhesion strength</li><li>• Security and safety</li></ul>	<ul style="list-style-type: none"><li>• Ease of use</li><li>• Production speed</li><li>• Clean removal</li></ul>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"><li>• Adhesion to oily surfaces (MSR's)</li><li>• Reduce cleanup with clean removability</li><li>• Cut resistant</li></ul>	<ul style="list-style-type: none"><li>• Increased processing speed</li><li>• Higher tensile and adhesion strength</li><li>• Improved substrate yield</li></ul>



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App Profile: Splicing



App Profile: Roll Starting

## Secure and Protect: Surface Protection

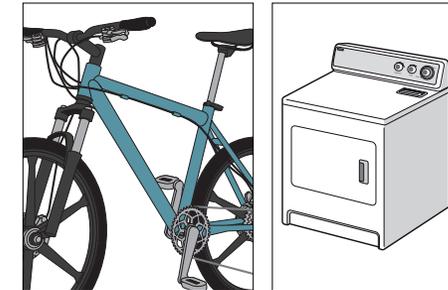


3M™ Industrial Protective Film 7070UV

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### Application Profile

<b>Application Description</b>	Long term protection for critical product surfaces
<b>Key Application Requirements</b>	<ul style="list-style-type: none"><li>• Issues with abrasion and scratching on product surfaces</li><li>• High wear areas</li><li>• Needing puncture resistant material for protection</li><li>• UV protection</li></ul>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"><li>• Durable and puncture resistant backings</li><li>• Long term adhesion to various substrates</li><li>• Helps protect surfaces from UV damage</li><li>• Reduces quality defects over anodised time and protects the surface to maintain new appearance</li><li>• Less reapplication and maintenance</li><li>• Maintains better appearance during product lifecycle</li></ul>



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Product Flyer: Film 7070UV



Installation: Film 7070UV

## Secure and Protect: Plasma Spray



3M™ Glass Cloth Tape 361

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### Application Profile

<b>Application Description</b>	Plasma spray is a thermal spray coating process used to produce a high quality coating by a combination of high temperature, high energy heat source, a relatively inert spraying medium, usually argon, and high particle velocities.
<b>Key Application Requirements</b>	<ul style="list-style-type: none"><li>• High tensile and adhesion strength</li><li>• Strong holding power</li><li>• Abrasion resistance</li><li>• Protection of surfaces from flame/plasma spray</li><li>• Easy to use</li><li>• Clean removal</li></ul>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"><li>• Protect surfaces and materials from intermittent temperatures up to 288 °C</li><li>• High adhesion</li><li>• Good holding power</li><li>• Clean removal</li><li>• Strong abrasion resistant backing</li></ul>



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Tapes for Metal Processing



Product Flyer: Tape 361

## Chemical Process and Coating: Anodising

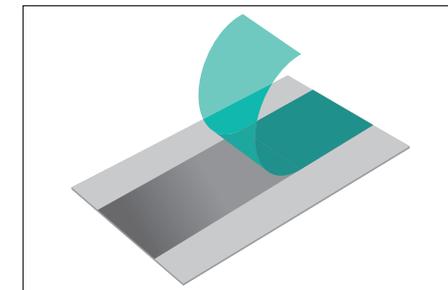
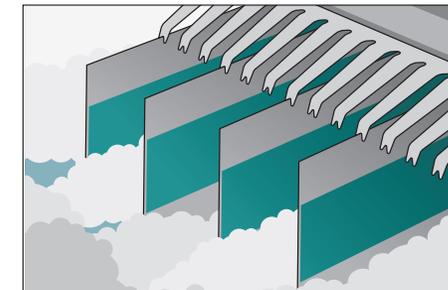


3M™ Polyester Tape 8992

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### Application Profile

<b>Application Description</b>	<p>Anodising is an electrochemical conversion process used to increase the durability and corrosion resistance of metal parts by creating a surface oxide layer.</p> <p>Masking for Anodising. Metal parts are anodised to prevent corrosion and provide a surface that paint can adhere to. Parts are masked off where anodisation is not desired. Then parts are dipped in the chemical baths which electrically and chemically change the surface of the metal.</p>
<b>Key Application Requirements</b>	<p>Chemical resistance</p>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"><li>• 3M Tapes can eliminate cure time of liquid maskants for increased throughput</li><li>• 3M Tapes product sharp lines which reduces rework from chemical seepage</li><li>• 3M Tape 8992 offers excellent chemical resistance to a variety of bath chemistries</li><li>• Best performance in broadest conditions</li><li>• Ability to see through tape for positioning and placement</li><li>• Good initial tack and holding strength with one piece clean removal from many surfaces</li><li>• Silicone adhesive offers high heat resistance compared to many rubber and acrylic adhesives, reducing failure due to softening, oozing and adhesive transfer</li><li>• Available with liner (8992L) for die cutting applications</li><li>• Wide working temperature: -60–400°F (-50–204°C)</li></ul>



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Tapes for Metal Processing



Product Flyer: Tape 8992

## Chemical Process and Coating: Electroplating

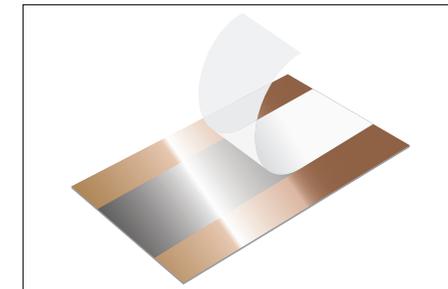
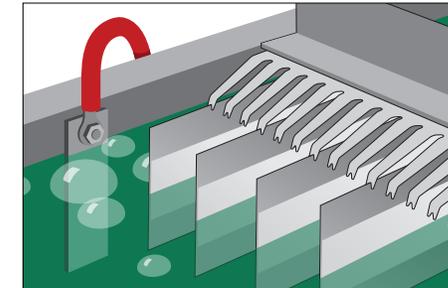


3M™ Electroplating Tape 470

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### Application Profile

<b>Application Description</b>	Electroplating is the process in which a layer of metal is deposited onto another metal surface by immersion in a chemical bath and exposure to electrical current. Maskants are used to prevent certain areas on the metal part from getting plated. The maskant must hold up to harsh chemicals and not fall off the part.
<b>Key Application Requirements</b>	Chemical resistance
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"><li>• Less clean-up and usage of PPE (Personal Protective Equipment) relative to liquid masking</li><li>• 3M Tapes do not require a cure time prior to plating</li><li>• 3M Tape solutions provide great line definition and remove quickly and cleanly</li><li>• 3M Lead Foil Tape can be burnished to prevent build-up of plating material at tape's edge reducing sanding rework after the plating process</li></ul>



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Tapes for Metal Processing

## Chemical Process and Coating: Powder Coating

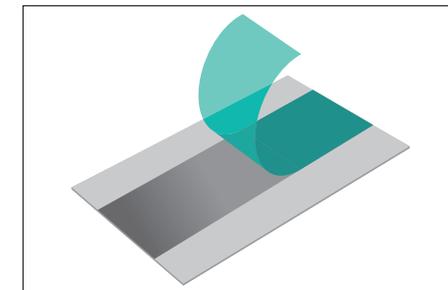
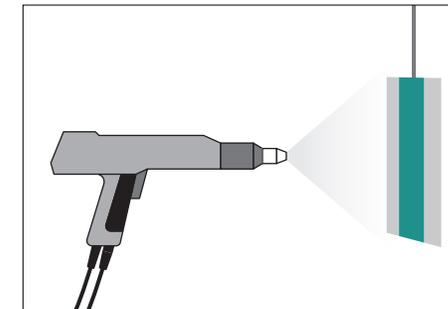


3M™ Polyester Tape  
8992

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### Application Profile

<b>Application Description</b>	Powder coating is different from a liquid paint as it's a dry powder that is sprayed onto a electrostatically charged metal part. The part is then cured at temperatures of 400°F and greater. Areas on the part that aren't intended to receive coating are masked off, typically with a tape or silicone plug.
<b>Key Application Requirements</b>	Powder Coat Painting
<b>Advantages and Benefits to Customers</b>	



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Tapes for Metal Processing



Product Flyer: Tape 8992

## Liquid Paint Masking

Fine Paint Lines/  
Complex Designs



471+

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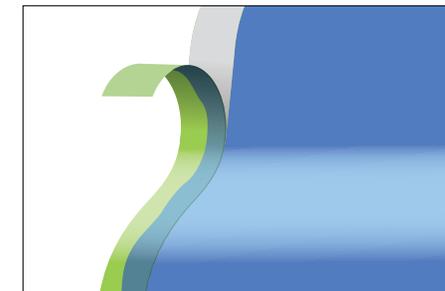
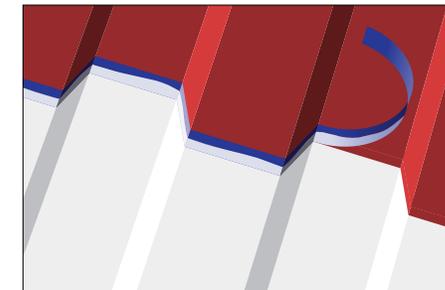


401E

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### Application Profile

<b>Application Description</b>	After the vehicle or boat is assembled, it is masked before it goes into the paint booth and oven. To cure the paint properly, ovens are set to temps of 175°F and higher. Sometimes the masking solution will need to survive multiple high-temp bake cycles.	
<b>Key Application Requirements</b>	<ul style="list-style-type: none"> <li>• Sharp paint lines</li> <li>• Clean removal</li> <li>• Temp resistance</li> </ul>	
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"> <li>• It is easy to tear, which aids in handling, yet strong enough to resist slivering, providing “user-friendly” one piece removal</li> <li>• Less slivering during de-mask allows much faster removal</li> </ul>	<ul style="list-style-type: none"> <li>• Clean removal can reduce clean up or rework after de-mask</li> <li>• If rework can be reduced, the customer can paint more products, reduce or re-allocate labour and reduce cost</li> </ul>



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Paint Masking with 3M Masking Tape

# Thin Gauge Metals

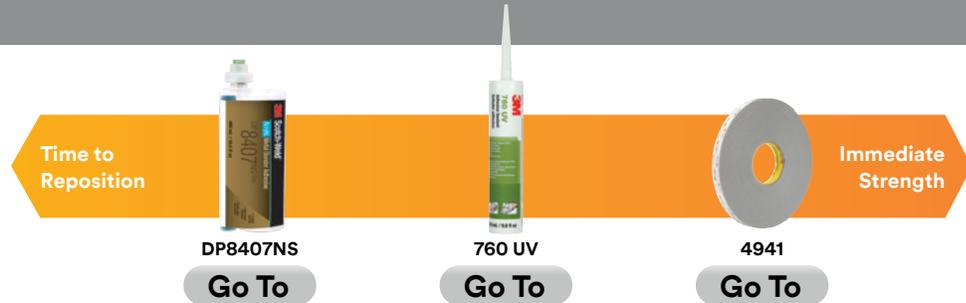
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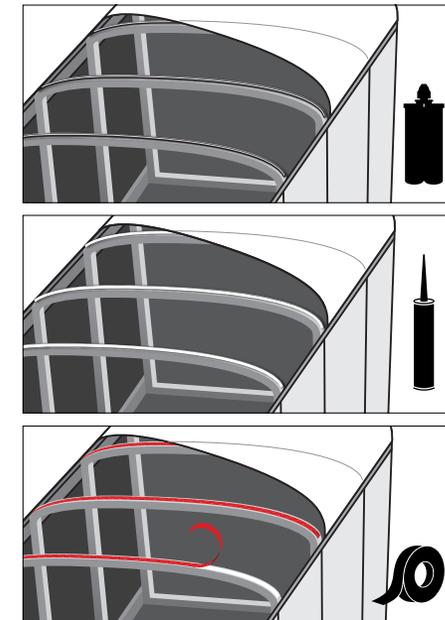
## Panel-to-Frame: Roof Panel Attachment

### Why Choose Tape vs. Adhesive?



### Application Profile

<b>Application Description</b>	Sheet metal panel that is attached to a cross-beam frame
<b>Key Application Requirements</b>	<ul style="list-style-type: none"> <li>• 100% seal on the roof to eliminate the chance of leaking</li> <li>• UV and Environmental resistance</li> <li>• Long lasting seal and bond strength</li> </ul>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"> <li>• Reduce/Simplify process steps</li> <li>• Reduce or eliminate the use of mechanical fasteners that weaken the structure and introduce high likelihood of leaks and that may reduce the service life of the product</li> <li>• Reduce re-work and Warranty Issues</li> <li>• More sustainable, aesthetically pleasing and higher performing end-product</li> </ul>



EMEA Product Catalogue



Brochure: Smooth Sided Trailer



Tech Bulletin: 3M™ VHB™ Tape Panel Bonding



White Paper: Combo Build



- Combo Build
- Panel-to-Frame

Alternative options

3M™ VHB™ Tape RP45

3M™ Scotch-Weld™ Low Odour Acrylic Adhesive DP8810NS

3M™ Adhesive Sealant 560

## Panel-to-Frame: Roof Panel Attachment

All 3M technologies shown below are commonly used in panel applications. Use the list below as a relative comparison of product performance to help determine if a tape or adhesive best fits the application needs.

### Product Performance

Attribute	3M™ VHB™ Tapes	3M™ Scotch-Weld™ Structural Adhesives	3M™ Adhesive Sealants
Number of steps to apply and ease of application	+++	+++	++
Rate of strength build	+++	++	+
Flexibility and joint expansions	+++	+	+++
Repair/removal after cure	+++	+	++
Holding power	++	+++	++

**PRO TIP:** For fast handling and strength with high ultimate strength, consider a combination build using both adhesives and tapes such as 3M™ VHB™ Tape with 3M™ Adhesive Sealants.

+ Good    ++ Better    +++ Best

# Thin Gauge Metals

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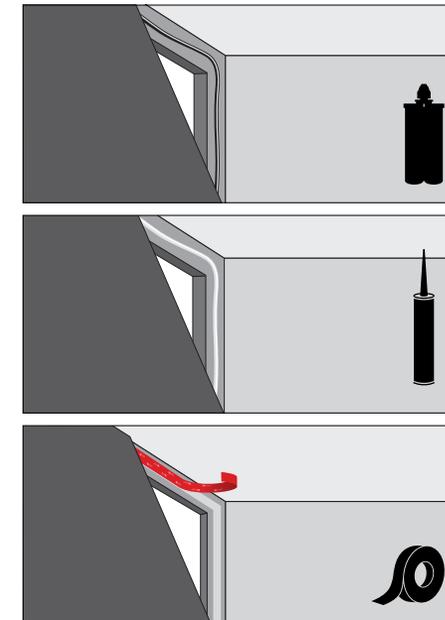
## Panel-to-Frame: Wall Panel Attachment



### Why Choose Tape vs. Adhesive?

### Application Profile

<b>Application Description</b>	It is typically a sheet metal panel attached to a steel frame (other materials can be also used instead of sheet metal).
<b>Key Application Requirements</b>	<ul style="list-style-type: none"> <li>• Potential need to remove the panel for service access</li> <li>• 100% seal to eliminate the chance of leaking</li> <li>• Environmental resistance</li> <li>• Long lasting seal and bond strength</li> </ul>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"> <li>• Reduce/Simplify process steps</li> <li>• Reduce or Eliminate the use of mechanical fasteners that weaken the structure and introduce high likelihood of leaks and that may reduce the service life of the product</li> <li>• Reduce re-work and Warranty Issues</li> <li>• More sustainable, aesthetically pleasing and higher performing end-product</li> </ul>



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Brochure: Smooth Sided Trailer



White Paper: Combo Build



Combo Build



Testimonial: Showhauler

Alternative options

3M™ VHB™ Tape RP45

3M™ Scotch-Weld™ Low Odour Acrylic Adhesive DP8810NS

3M™ Adhesive Sealant 760 UV

3M™ Dual Lock Reclosable Fastener SJ3350 (for removable panel)

## Panel-to-Frame: Wall Panel Attachment

All 3M technologies shown below are commonly used in panel applications. Use the list below as a relative comparison of product performance to help determine if a tape or adhesive best fits the application needs.

Product Performance				
Attribute	3M™ VHB™ Tapes	3M™ Scotch-Weld™ Structural Adhesives	3M™ Adhesive Sealants	3M™ Reclosable Fasteners
Number of steps to apply and ease of application	+++	+++	++	++
Rate of strength build	+++	++	+	+++
Flexibility and joint expansions	+++	+	+++	+++
Repair/removal after cure	+++	+	++	+++
Holding power	++	+++	++	+

**PRO TIP:** For fast handling and strength with high ultimate strength, consider a combination build using both adhesives and tapes such as 3M™ VHB™ Tape with 3M™ Adhesive Sealants.

+ Good    ++ Better    +++ Best

# Thin Gauge Metals

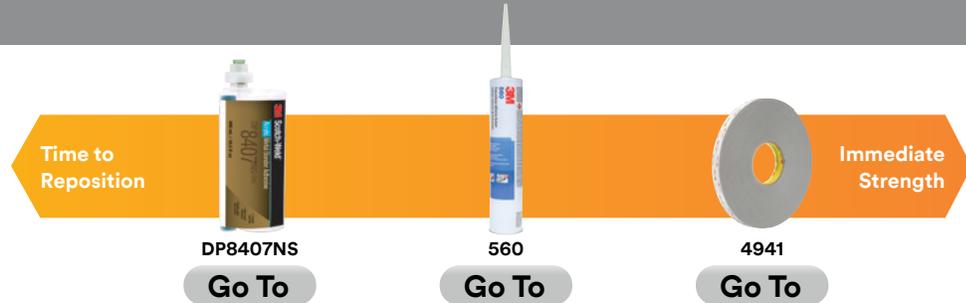
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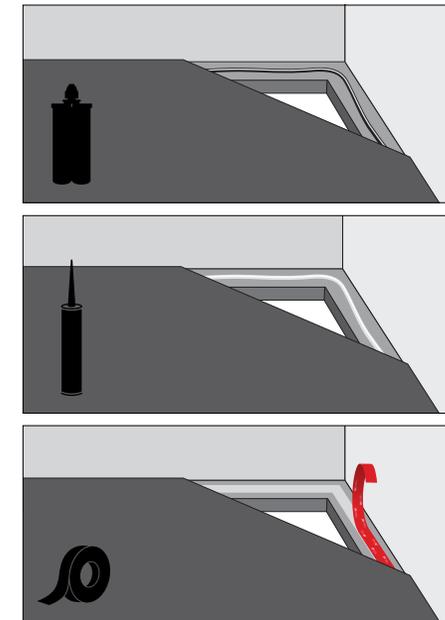
## Panel-to-Frame: Floor Panel Attachment

### Why Choose Tape vs. Adhesive?



### Application Profile

<b>Application Description</b>	Thicker gauge metal panel attached to sub-floor metal framing
<b>Key Application Requirements</b>	<ul style="list-style-type: none"><li>• 100% seal on the floor to eliminate the chance of leaking</li><li>• UV and Environmental resistance</li><li>• Long lasting seal and bond strength</li></ul>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"><li>• Reduce/Simplify process steps</li><li>• Reduce or eliminate the use of mechanical fasteners that weaken the structure and introduce high likelihood of leaks and that may reduce the service life of the product</li><li>• Reduce re-work and potential warranty issues</li><li>• Reduce chances of rusting</li><li>• More sustainable, aesthetically pleasing and higher performing end-product</li></ul>



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Brochure: Smooth Sided Trailer



White Paper: Combo Build



Combo Build



Testimonial: Innovent

Alternative options

3M™ VHB™ Tape  
RP45

3M™ Scotch-Weld™ Low Odour  
Acrylic Adhesive DP8810NS

3M™ Adhesive Sealant  
760 UV

## Panel-to-Frame: Floor Panel Attachment

All 3M technologies shown below are commonly used in panel applications. Use the list below as a relative comparison of product performance to help determine if a tape or adhesive best fits the application needs.

### Product Performance

Attribute	3M™ VHB™ Tapes	3M™ Scotch-Weld™ Structural Adhesives	3M™ Adhesive Sealants
Number of steps to apply and ease of application	+++	+++	++
Rate of strength build	+++	++	+
Flexibility and joint expansions	+++	+	+++
Repair/removal after cure	+++	+	++
Holding power	++	+++	++

**PRO TIP:** For fast handling and strength with high ultimate strength, consider a combination build using both adhesives and tapes such as 3M™ VHB™ Tape with 3M™ Adhesive Sealants.

+ Good   ++ Better   +++ Best

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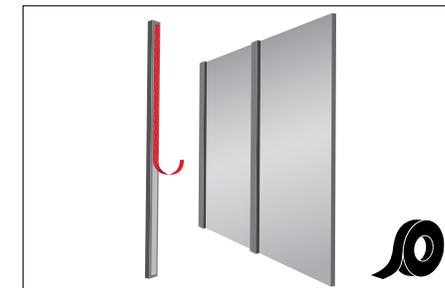
## Stiffener-to-Panel

Why Choose Tape vs. Adhesive?



### Application Profile

<b>Application Description</b>	Stiffeners are applied to panels to give extra support and rigidity. These are commonly seen in trailer panels, traffic signs and large metal enclosures.
<b>Key Application Requirements</b>	<ul style="list-style-type: none"><li>• Dead load holding strength</li><li>• Flexibility for dynamic loads or thermal expansion mismatch</li><li>• Gap filling or variation in fit from end to end</li><li>• Water-tight sealing</li></ul>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"><li>• Quick and easy to apply, helping to improve throughput</li><li>• Reduces abrasive finishing steps usually performed after the stiffener is attached by spot welds, fasteners or other attachment methods</li><li>• Help reduce labour and material costs associated with spot weld clean up and damage caused by current stiffener attachment method</li></ul>



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Product Flyer: GHP



Animation: LSB Bus



Testimonial: WS Steel

Alternative options

3M™ VHB™ Tape  
GPH-110GF

3M™ VHB™ Tape  
RP45

3M™ Scotch-Weld™ Low Odour  
Acrylic Adhesive DP8810NS

3M™ Scotch-Weld™ Multi-Material  
Composite Urethane Adhesive DP6310NS

## Stiffener-to-Panel

All 3M technologies shown below are commonly used in panel applications. Use the list below as a relative comparison of product performance to help determine if a tape or adhesive best fits the application needs.

### Product Performance

Attribute	3M™ VHB™ Tapes	3M™ Scotch-Weld™ Structural Adhesives
Number of steps to apply and ease of application	+++	+++
Rate of strength build	+++	++
Flexibility and joint expansions	+++	+
Repair/removal after cure	+++	+
Holding power	++	+++

**PRO TIP:** For fast handling and strength with high ultimate strength, consider a combination build using both adhesives and tapes such as 3M™ VHB™ Tape with 3M™ Adhesive Sealants.

+ Good   ++ Better   +++ Best

# Thin Gauge Metals

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## Insulation: Insulated Panel Bonding



3M™ Fast Tack  
Water Based  
Adhesive  
1000NF

Go To



3M™ Sprayable  
Hot Melt  
Adhesive  
6111 HT

Go To

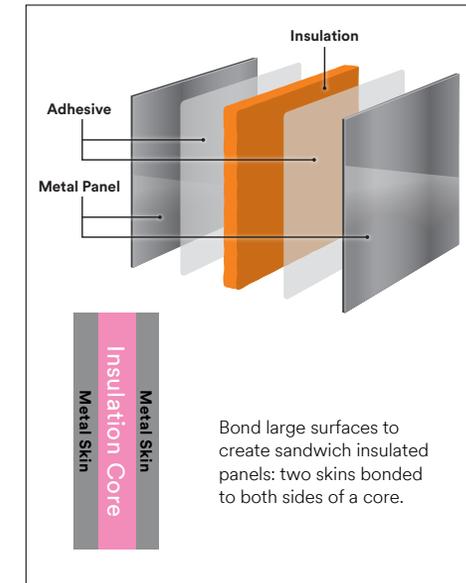


3M™ HoldFast  
70 Spray  
Adhesive

Go To

### Application Profile

<b>Application Description</b>	Large surface lamination skin to core — bonding flat substrates to one another. Polystyrene to metal or honeycomb to metal. Making insulated panels for airport walls (or any walls), trailers, and trucks.
<b>Key Application Requirements</b>	<ul style="list-style-type: none"> <li>• Adhesive only needs to be as strong or stronger than the core</li> <li>• Low cost per sq metre coverage story</li> <li>• Speed of assembly</li> <li>• Ability to bond Polystyrene (EPS) without degradation</li> <li>• Ability to bond to a wide array of substrates</li> </ul>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"> <li>• Versatile adhesive, bonds to wide array of substrates</li> <li>• Creates quick bonds</li> <li>• Very fast-tacking adhesive bonds almost immediately and has a long bonding range</li> <li>• Bonds polystyrene without damaging the material or degrading the surface</li> </ul>



EMEA Product Catalogue



HoldFast 70



Fastbond 30-NF

Alternative options

3M™ Fastbond™ Contact Adhesive 30-NF

3M™ Polystyrene Insulation Adhesive 78

# Thin Gauge Metals

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## Insulation: Insulation Attachment



3M™ Fast Tack Water Based Adhesive 1000NF

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3M™ Sprayable Hot Melt Adhesive 6111 HT

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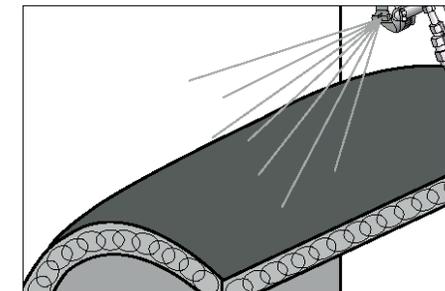
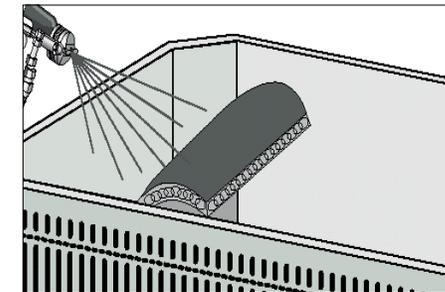


3M™ Fastbond™ Insulation Adhesive 49

Go To

### Application Profile

<b>Application Description</b>	In a metal enclosure like an air conditioning unit, insulation is attached to the inner metal walls to manage heat. It is typically attached with a sprayable solvent or water based adhesive and can also be secured with rivets or fasteners.
<b>Key Application Requirements</b>	<ul style="list-style-type: none"><li>• Reduce installation failure</li><li>• Fast and permanent bond needed</li><li>• Regulatory compliance</li></ul>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"><li>• High coverage for high savings</li><li>• Instant tacking and potential for one-surface bond improve production efficiency</li><li>• Low VOC helps achieve regulatory compliance</li><li>• Permits immediate repositioning while provided lasting strength</li></ul>



EMEA Product Catalogue



Adhesive 49



HoldFast 70



Super 77

Alternative options

3M™ HoldFast 70 Spray Adhesive

3M™ Super 77™ Multipurpose Spray Adhesive

## Decorative Metal Attachment: Kick/Name/Face Plates



DP490

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950

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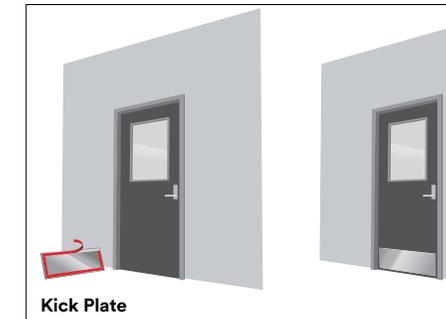


5952

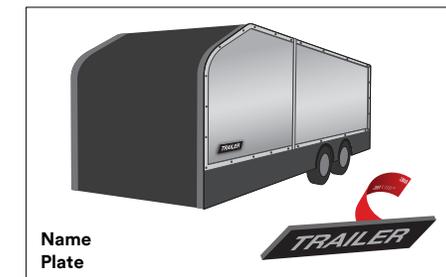
Go To

### Application Profile

<p><b>Application Description</b></p>	<p><b>Kick plates</b> are an addition to the bottom of your door that help reduce the amount of damage and stress that your door takes over time. They're installed on the push side of the door.</p> <p><b>Faceplates</b> are a piece of material, usually plastic or metal, used to fit over a device's components. It is mainly used for protection and for enhancing the design and appearance of the device.</p> <p><b>Nameplates</b> are a piece of material, usually plastic or metal, used for long term product identification or marking for branding, identification, instructions, and other marketings. Industrial strength nameplates are required to withstand harsher operating environments.</p>	
<p><b>Key Application Requirements</b></p>	<ul style="list-style-type: none"> <li>• Dead load holding strength</li> <li>• Repositionable during application</li> <li>• Aesthetically pleasing (smooth look)</li> </ul>	<ul style="list-style-type: none"> <li>• Fast rate of strength build</li> <li>• Removability after cure</li> </ul>
<p><b>Advantages and Benefits to Customers</b></p>	<ul style="list-style-type: none"> <li>• Easy application with minimal surface prep and tools</li> <li>• Provides clean, smooth finish</li> <li>• Metal corrosion concerns are eliminated</li> <li>• Provides strong, lasting bond between plate and substrate</li> </ul>	<ul style="list-style-type: none"> <li>• Bonds well to most powdered coated and painted metals and plastics without surface priming or abrading</li> <li>• Viscoelastic properties of foam core help damp vibration</li> </ul>



Kick Plate



Name Plate



EMEA Product Catalogue



ATG Power to Bond Brochure



3M™ VHB™ Tape Design Guide



Testimonial: WS Steel

## Decorative Metal Attachment: Trim Attachment



926

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950

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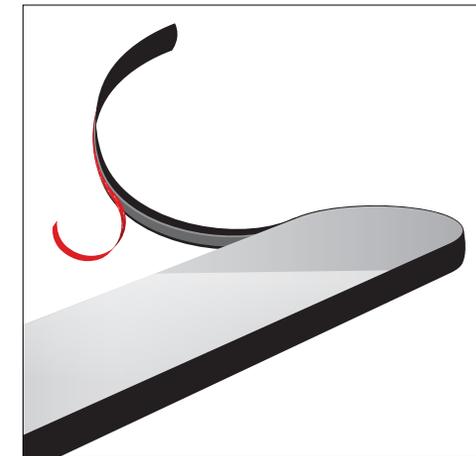


5952

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### Application Profile

<b>Application Description</b>	Mounting and trim attachment is the application of a smaller object to a larger surface to add functionality or decoration. These kinds of attachments are common in transportation, appliances, furniture, construction and architecture. They often require dead load holding strength, aesthetics, removability and fast bonding with little or no fixturing.	
<b>Key Application Requirements</b>	<ul style="list-style-type: none"> <li>• High initial and ultimate bond strength</li> <li>• Easy to apply</li> <li>• Aesthetically pleasing (smooth look)</li> </ul>	
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"> <li>• Easy application with minimal surface prep and tools</li> <li>• Provides clean, smooth finish</li> <li>• Metal corrosion concerns are eliminated</li> <li>• Provides strong, lasting bond between plate and substrate</li> </ul>	<ul style="list-style-type: none"> <li>• Bonds well to most powdered coated and painted metals and plastics without surface priming or abrading</li> <li>• Viscoelastic properties of foam core help damp vibration</li> </ul>



EMEA Product Catalogue



ATG Power to Bond Brochure



3M™ VHB™ Tape Design Guide



Testimonial: WS Steel

## Sealing and Gasketing: Gasket

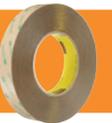
Med to High Surface Energy Substrates



9832  
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DP490  
[Go To](#)

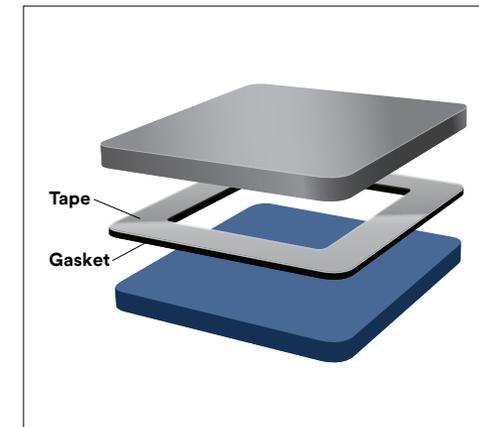


9472LE  
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Low Surface Energy Substrates

### Application Profile

<b>Application Description</b>	Attachment of a substrate, usually foam or rubber, that acts as an interface or a seal between two surface. 3M provides solutions for attaching gaskets and also solutions which can replace gaskets that bond and seal simultaneously.
<b>Key Application Requirements</b>	<b>Gasket attachment assemblies typically require:</b> <ul style="list-style-type: none"><li>• Easy and fast application of tape or adhesive</li><li>• Strong environmental and chemical resistance</li><li>• High adhesion to foams, rubbers and other difficult-to-bond substrates</li></ul>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"><li>• Excellent adhesion to a variety of surfaces reduces common bond failures</li><li>• Improve performance by reducing leaks and increasing adhesion to gasket materials</li><li>• High performance PSA technology can bond well to difficult surfaces including LSE plastics and powder coated painted surfaces</li><li>• Environmental and chemical resistance helps the finished product remain in operation longer</li><li>• Peel and stick solution can improve assembly efficiency</li></ul>



EMEA Product Catalogue



ATG Power to Bond Brochure



3M™ VHB™ Tape Design Guide

## Sealing and Gasketing: Seam Seal

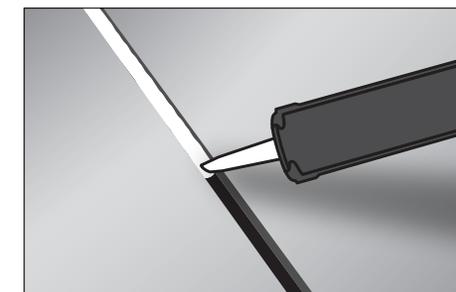
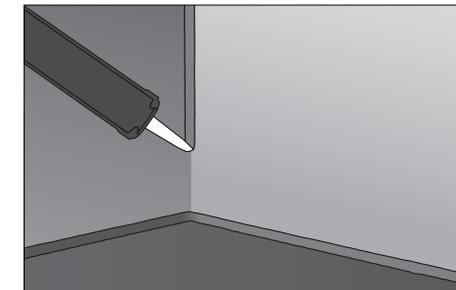


3M™ Polyurethane Adhesive Sealant 540

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### Application Profile

<b>Application Description</b>	Sealant is applied over a seam to prevent fluid ingress or fluid egress. Examples include roof seams on vehicles, seams on metal enclosures and pipe sealing.
<b>Key Application Requirements</b>	<ul style="list-style-type: none"><li>• Prevent fluid or/and air ingress or egress</li><li>• Provide gap fill in seams</li><li>• Overcoming thermo-expansion with sealant elongation properties</li><li>• High environmental and UV Resistance</li><li>• Extreme sealing tape would not be used for seam sealing on a sidewall due to aesthetic concerns.</li></ul>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"><li>• Robust UV and environmental resistance</li><li>• Superior chemistry to ensure a long-lasting seal compared to most our competitors</li><li>• Vibration and noise damping</li></ul>



EMEA Product Catalogue



3M Adhesive Sealants

# Thin Gauge Metals

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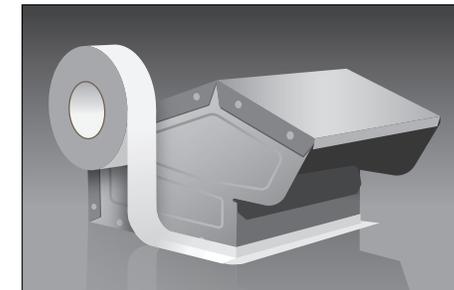
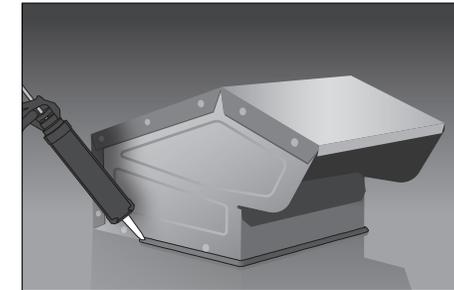
## Sealing and Gasketing: Roof Seal

### Why Choose Tape vs. Adhesive?



### Application Profile

<b>Application Description</b>	Tape or sealant is applied over a seam to prevent fluid ingress or fluid egress. Examples include roof seams on vehicles, seams on metal enclosures and pipe sealing.
<b>Key Application Requirements</b>	<ul style="list-style-type: none"><li>• Prevent fluid or/and air ingress or egress</li><li>• Provide gap fill in seams</li><li>• Overcoming thermo-expansion with sealant elongation properties</li><li>• High environmental and UV Resistance</li><li>• Extreme sealing tape would not be used for seam sealing on a sidewall due to aesthetic concerns.</li></ul>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"><li>• Robust UV and environmental resistance</li><li>• Superior chemistry to ensure a long-lasting seal compared to most our competitors</li><li>• Vibration and noise damping</li></ul>



EMEA Product Catalogue



3M Adhesive Sealants

## Sealing and Gasketing: Roof Seal

All 3M technologies shown below are commonly used in sealing applications. Use the list below as a relative comparison of product performance to help determine if a tape or adhesive best fits the application needs.

Product Performance		
Attribute	3M™ Adhesive Sealants	3M™ Extreme Sealing Tapes
Ease of application	+++	++
Time to paint (or handle part)	+++	+++
Flexibility	+	+++
Immediate rework	+++	+

+ Good   ++ Better   +++ Best

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## View Port Window

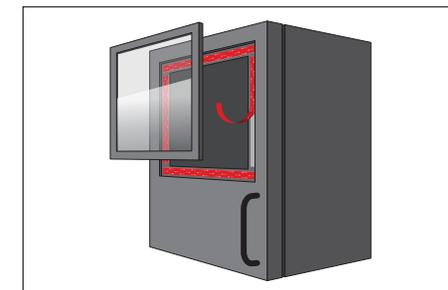


3M™ VHB™ Tape  
4941

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### Application Profile

<b>Application Description</b>	Also called see-through window. Attaching a window into an enclosed unit to allow visibility through the unit for maintenance and security.
<b>Key Application Requirements</b>	<ul style="list-style-type: none"><li>• Attach and seal the view port into the wall panel</li><li>• 100% seal needed</li></ul>
<b>Advantages and Benefits to Customers</b>	<ul style="list-style-type: none"><li>• Effectively bond and seal window into place</li><li>• Increase process efficiency</li><li>• Reduce rejects due to over-tightening mechanical fasteners</li></ul>



EMEA Product Catalogue



Tech Bulletin: 3M™ VHB™ Tape Panel Bonding



3M™ VHB™ Tape Design Guide



Combo Build

Alternative options

3M™ VHB™ Tape  
5952

3M™ VHB™ Tape  
RP45

3M™ Polyurethane Glass  
Adhesive Sealant 590

3M™ Adhesive Sealant  
760 UV

# Thin Gauge Metals

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## Floor and Marking Safety



Product	Number	Colour marking	Floor, wall, loading dock marking	Hazard area marking	Clean removal	Traffic areas	Key features
	471						Long-term high visibility and abrasion resistance
	971						Scuffing from pallets and heavy equipment, fork-lift traffic
	764						Economical lane and colour marking in non-critical applications
	766						Economical safety marking in non-critical applications
	767						Economical safety marking in non-critical applications
	5702						Long-term high visibility and abrasion resistance



EMEA Product Catalogue



3M™ Industrial Tapes for Marking



3M™ Floor and Safety Marking

# Thin Gauge Metals

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Secure and Protect	Chemical Process and Coating	Liquid Paint Masking	Panel-to-Frame	Stiffener-to-Panel	Insulation	Decorative Metal Attachment	Sealing and Gasketing	View Port Window	Floor and Safety Marking
Scotch® Clean Removal Strapping Tape 8899HP	3M™ Polyester Tape 8992	3M™ Vinyl Tape 471+	3M™ VHB™ Tape 4941/4941F	3M™ VHB™ Tape 4941	3M™ Fastbond™ Insulation Adhesive 49	3M™ VHB™ Tape 5952	3M™ Double Coated Tape 9832	3M™ VHB™ Tape 4941	3M™ Vinyl Tape 471
Scotch® Filament Tape 898MSR	3M™ Electroplating Tape 470	3M™ High Performance Industrial Masking Tape 401E	3M™ Scotch-Weld™ Metal Bonder Acrylic Adhesive DP8407NS	3M™ Scotch-Weld™ Metal Bonder Acrylic Adhesive DP8407NS	3M™ Holdfast 70 Spray Adhesive	3M™ Adhesive Transfer Tape 950	3M™ Polyurethane Sealant 540	— Alternative Products — 3M™ VHB™ Tape 5952	3M™ Ultra Durable Floor Marking Tape 971
Scotch® Bi-Directional Filament Tape 8959	3M™ Glass Cloth Tape 361	— Alternative Products — 3M™ Vinyl Tape 471	3M™ Polyurethane Adhesive Sealant 560	3M™ Scotch-Weld™ Epoxy Adhesive DP490	3M™ Fast Tack Water Based Adhesive 1000NF	Scotch® ATG Adhesive Transfer Tape 926	3M™ Adhesive Sealant 740 UV	3M™ VHB™ Tape RP45	3M™ Vinyl Tape 764
3M™ Industrial Protective Film 7070UV	— Alternative Products — 3M™ Lead Foil Tape 421	3M™ General Purpose Masking Tape 201E	3M™ Adhesive Sealant 760 UV	3M™ Scotch-Weld™ Epoxy Adhesive 7240	3M™ Sprayable Hot Melt Adhesive 6111 HT	3M™ Scotch-Weld™ Epoxy Adhesive DP490	3M™ Extreme Sealing Tape 4412N/4412G	3M™ Polyurethane Glass Adhesive Sealant 590	3M™ Hazard Marking Tapes 766/767
— Alternative Products — Scotch® Filament Tape 880MSR	3M™ Vinyl Tape 471	3M™ Performance Industrial Masking Tape 301E	3M™ Scotch-Weld™ Epoxy Adhesive 7240	— Alternative Products — 3M™ VHB™ Tape GPH-110GF	— Alternative Products — 3M™ Fastbond™ Contact Adhesive 30-NF	— Alternative Products — 3M™ VHB™ Tape 4910F	3M™ Adhesive Transfer Tape 9472LE	3M™ Adhesive Sealant 760 UV	3M™ Safety Stripe Tape 5702
	3M™ Glass Cloth Tape 363	3M™ Speciality High Temperature Masking Tape 501E	— Alternative Products — 3M™ VHB™ Tape RP45	3M™ VHB™ Tape RP45	3M™ Polystyrene Insulation 78 Spray Adhesive	3M™ VHB™ Tape RP45	— Alternative Products — 3M™ VHB™ Tape 5952		
	3M™ Polyester Tapes 8991		3M™ Dual-Lock™ Reclosable Fastener SJ3550	3M™ Scotch-Weld™ Multi-Material Composite Urethane Adhesives DP6310NS	3M™ Super 77™ Multipurpose Spray Adhesive	3M™ Adhesive Transfer Tape 467MP/468			
	3M™ Foil Tapes 425/427		3M™ Scotch-Weld™ Low Odour Acrylic Adhesive DP8810NS	3M™ Scotch-Weld™ Low Odour Acrylic Adhesive DP8810NS		3M™ Adhesive Transfer Tape 9485PC			
						Scotch® ATG Adhesive Transfer Tape 969			

## Scotch® Clean Removal Strapping Tape 8899HP



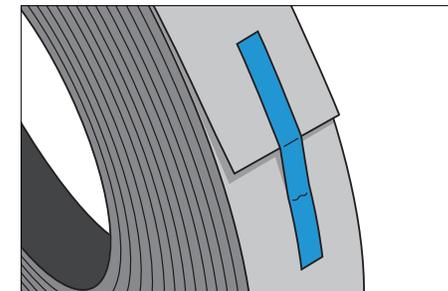
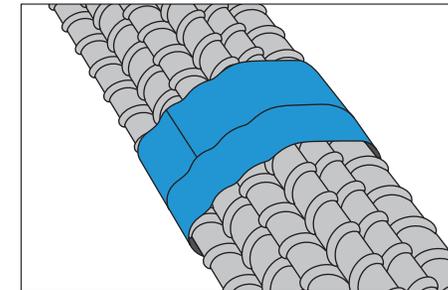
Strapping tapes are high strength, reliable and affordable solutions for product and package integrity. The high-performance tape is designed to secure shelving, racks, doors, panels, cords and parts in place, from plant to install; along with use in narrow coil closure and bundling metal parts.

- ▶ Easy to apply and to remove ; 100% Clean removal with no adhesive residue. Resists stains on common surfaces, such as painted metal, plastic and glass
- ▶ Proprietary 3M pressure-sensitive rubber adhesive is specifically formulated to adhere evenly and bond firmly to long lasting hold
- ▶ High strength film backing resists breaking, abrasion, moisture and scuffs and includes proper stiffness for manual or semi-automatic dispensing
- ▶ Easy to dispense with a Scotch® Box Sealing Tape Dispenser H128 or a Scotch® Filament Tape Hand Dispenser H10

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Adhesive Type	Total Thickness mil (mm)	Tensile Strength lb/in (N/100mm)	Peel Adhesion oz/in (N/100mm)	Elongation (%)	Backing Colour
ASTM		D-3652	D-3759	D-3330*	D-3759	
Tensilised polypropylene	Pressure-sensitive rubber	4.8 (0.122)	160 (2,802)	45 (49)	30	Blue, white

\*Peel adhesion to stainless steel



EMEA Product Catalogue



Tapes for Metal Processing



App Profile: Bundling

# Thin Gauge Metals

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## Scotch® Filament Tape 880MSR



For applications requiring adhesion to oily surfaces. This polyester filament-reinforced tape is ideal for bundling and wrapping applications on heavy gauge metals. It offers long-term holding power, very-high tensile strength, and excellent abrasion, moisture and scuff resistance.

- ▶ Polyester yarn filament-reinforced tape has added strength for high impact, elongation and cut resistance
- ▶ Ideal for metal splicing, coil tabbing, bundling and reinforcing applications
- ▶ Modified synthetic rubber adhesive provides better adhesion than natural rubber adhesives and bonds well to metals and oily surfaces
- ▶ Able to withstand rough shipping and handling conditions

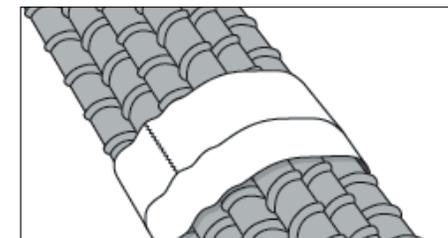
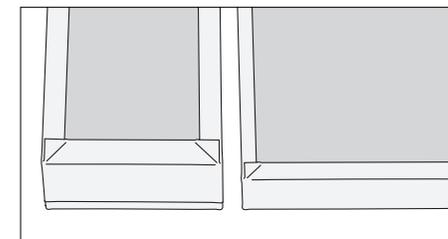
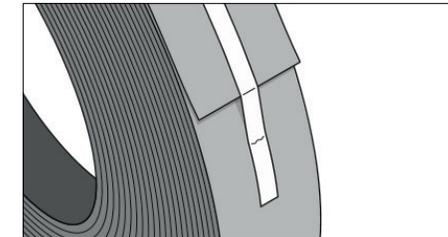


Clear, polyester filament-reinforced, polyester backing provides exceptional tensile strength

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Reinforcement	Total Thickness mil (mm)	Adhesive Type	Tensile Strength lb/in (N/100mm)	Peel Adhesion oz/in (N/100mm)	Elongation (%)	Backing Colour
ASTM		D-3652		D-3759	D-3330*	D-3759	
Polyester film	Polyester yarn filament	7.7 (0.196)	Pressure-sensitive modified synthetic rubber	270 (4,725)	95 (100)	19	Clear

\*Peel adhesion to stainless steel



EMEA Product Catalogue



App Profile: Coil Tabbing



App Profile: Bundling



App Profile: Edge Protection

Alternative options

Scotch® Clean Removal Strapping Tape 8899HP

Scotch® Filament Tape 898MSR

Scotch® Bi-Directional Filament Tape 8959

3M™ Industrial Protective Film 7070UV

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## Scotch® Filament Tape 898MSR

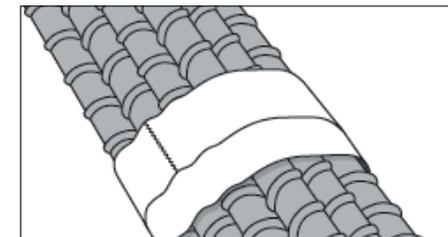
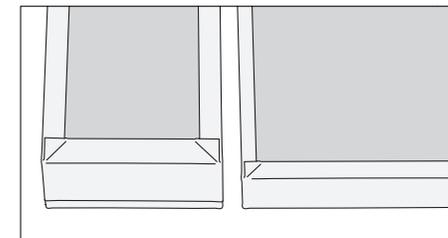
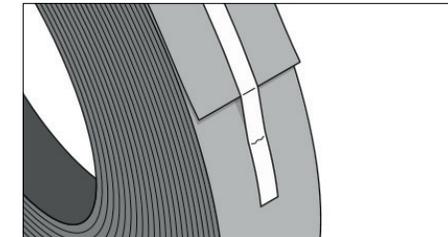


A high-performance transparent tape reinforced along its length with continuous fibreglass-yarn filaments, which gives the tape a very high tensile strength. The clear polyester backing provides excellent abrasion, moisture and scuff resistance.

- ▶ Abrasion and moisture resistant with good oily metal adhesion
- ▶ High tensile strength
- ▶ Allows printing and illustrations to be seen through the tape
- ▶ High shear and good initial adhesion and excellent aging
- ▶ Assures maximum package performance for limited outdoor use
- ▶ Good holding, with minimum amount of tape, under a wide range of application conditions
- ▶ Holds instantly with minimum rubdown and boxes remain securely closed

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Reinforcement	Total Thickness mil (mm)	Adhesive Type	Tensile Strength lb/in (N/100mm)	Peel Adhesion oz/in (N/100mm)	Elongation (%)	Backing Colour
ASTM		D3652					
Polyester film	Glass yarn	6 (0.15)	Pressure sensitive modified synthetic rubber	380 (665)	90 (99)	3	Clear



EMEA Product Catalogue



Tapes for Metal Processing



App Profile: Coil Tabbing



App Profile: Bundling



App Profile: Edge Protection

Alternative options

Scotch® Clean Removal Strapping Tape 8899HP

Scotch® Bi-Directional Filament Tape 8959

Scotch® Filament Tape 880MSR

3M™ Industrial Protective Film 7070UV

# Thin Gauge Metals

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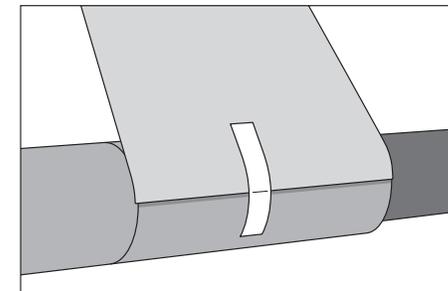
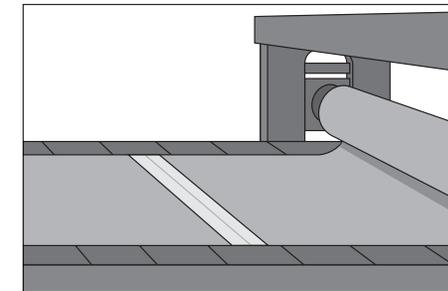
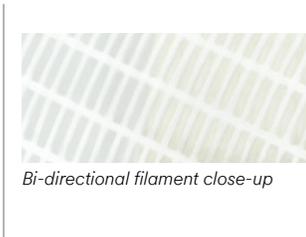
Disclaimer

## Scotch® Bi-Directional Filament Tape 8959



A speciality packaging tape reinforced with continuous glass yarns in both the longitudinal and transverse direction along with a biaxially oriented polypropylene backing. This backing provides good abrasion, moisture and scuff resistance. The adhesive is specifically formulated to provide good adhesion to a wide variety of surfaces including metallic, plastic, and fibreboard.

- ▶ High cross-direction tensile strength
- ▶ Allows printing and illustrations to be seen through the tape
- ▶ Excellent shear and initial adhesion and aging
- ▶ Protection of filaments and adhesive to provide longer package life
- ▶ Hold with minimum rubdown, doesn't require water to activate
- ▶ Confidence with high initial adhesion tack to hold the metal



Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Reinforcement	Total Thickness mil (mm)	Adhesive Type	Tensile Strength lb/in (N/cm)	Peel Adhesion oz/in (N/00mm)	Elongation (%)	Backing Colour
ASTM		D3652					
Polypropylene film	Bi-directional glass yarn	5.7 (0.14)	Pressure sensitive synthetic rubber	150 (260)	100 (109)	6	Clear



EMEA Product Catalogue



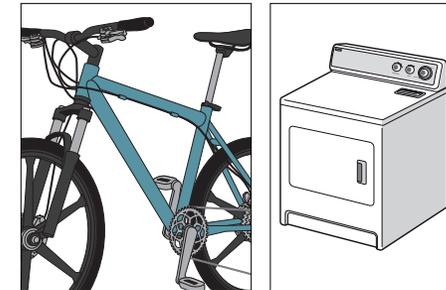
App Profile: Roll Starting

## 3M™ Industrial Protective Film 7070UV



An abrasion resistant, pressure sensitive adhesive backed film product designed to protect multiple industrial surfaces from damage caused by abrasion, scratching, erosion, UV and minor impacts. This rugged clear film is durable, flexible, and able to conform to curved surfaces while being easy to apply.

- ▶ Polyurethane backing resists punctures and tearing
- ▶ Provided on a paper liner for ease of die cutting specific shapes
- ▶ Easily applied with simple tools in a minimal amount of time
- ▶ Clear colour will not obscure surfaces
- ▶ Maximum service temperature 200°F (93.3°C)



Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Backing Thickness mil (mm)	Adhesive Type	Adhesive Thickness mil (mm)	Total Tape Thickness mil (mm)	Liner Material	Liner Release oz/in (N/cm)	Water Vapor Transmission Rate (g/in <sup>2</sup> /hr)	Tensile Strength oz/in (N/cm)	Peel Adhesion oz/in (N/cm)	Elongation at Break (%)
ASTM	D3652		D3652	D3652		D3330	D3833	D3759	D3330*	D3759
Polyurethane	6.5 (0.17)	Acrylic	1.5 (0.4)	8 (0.2)	Paper	0.39 (0.04)	6.1/100/24	1088 (119.1)	47 (5.1)	638

\*Peel adhesion to stainless steel



EMEA Product Catalogue



Product Flyer: Film 7070UV



Installation: Film 7070UV

## 3M™ Polyester Tape 8992



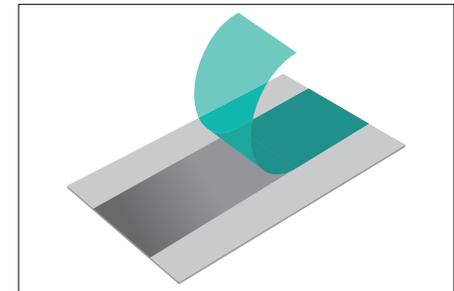
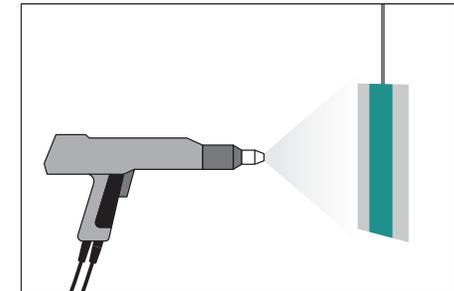
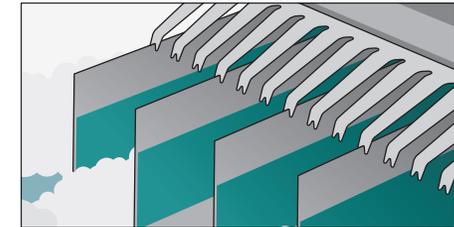
A general purpose polyester tape ideal for masking in high temperature applications. The translucent green backing is tear resistant. Coated with a silicone adhesive, this tape functions well in masking for powder coating to provide sharp paint lines. It removes cleanly and in one-piece from most surfaces, avoiding slivering and breaking.

- ▶ Works in demanding conditions and high temperatures ranging from -60°F (-50°C) to 400°F (204°C)
- ▶ Clean removal during high-temperature masking operations such as powder coating
- ▶ Polyester film offers excellent thermal and chemical resistance while maintaining flexibility
- ▶ Thicker version of 3M™ Polyester Tape 8991
- ▶ Silicone adhesive provides clean removal from a variety of surfaces
- ▶ Translucent green backing provides easy identification and positioning

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Adhesive Type	Total Thickness mil (mm)	Tensile Strength oz/in (N/cm)	Peel Adhesion oz/in (N/cm)	Elongation (%)	Colour
ASTM	D3652	D3652	D3759	D3330*	D3759	
Polyester	Silicone	3.2 (0.082)	912 (99.8)	44 (4.8)	148	Green

\*Peel adhesion to stainless steel



EMEA Product Catalogue



Tapes for Metal Processing



Product Flyer: Tape 8992

## 3M™ Lead Foil Tape 421



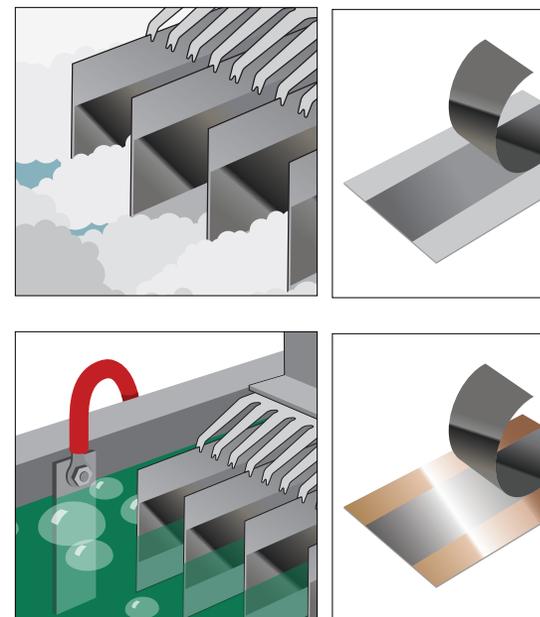
This lead foil tape is formulated to be electrically and thermally conductive and carries a strong acid and base resistance, making it ideal for electroplating. Offers good initial grab and a long-lasting bond that removes cleanly for most surfaces. Rubber adhesive backing offering excellent conformability in a variety of indoor and outdoor conditions.

- ▶ Can be shaped into complex or detailed patterns or die-cut into specific shapes to meet assembly and manufacturing process needs
- ▶ Performs over a wide variety of temperature conditions
- ▶ Heat and light reflective tape protects insulates and enhances lighting efficiency
- ▶ Backing can be burnished to fully cover the adhesive and allow full contact of the lead foil to the metal base
- ▶ Tape resists flame, moisture, weather, UV degradation, and many chemicals

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Thickness mil (mm)	Total Tape Thickness mil (mm)	Approx. Weight lb/yd/in (g/m/mm)	Water Vapor Transmission Rate (g/in <sup>2</sup> /hr)	Tensile Strength lb/in (N/cm)	Peel Adhesion oz/in (N/cm)	Elong. (%)	Temperature Use Range °F (°C)	Standard Roll Length yd (m)
ASTM D3652	D3652			D3759	D3330*	D3759		
4 (0.1)	6.3 (0.16)	0.06 (0.034)	0.1/100/24	15 (26.3)	45 (3.4)	14	-60 to 225 (-51 to 107)	36 (33)

\*Peel adhesion to stainless steel



EMEA Product Catalogue



Tapes for Metal Processing

## 3M™ Electroplating Tape 470



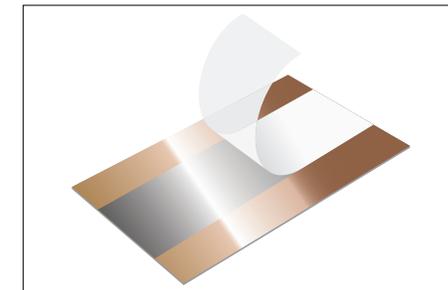
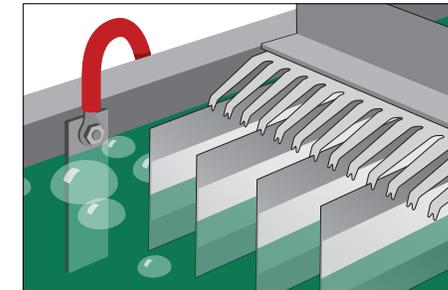
A conformable and abrasion-resistant vinyl tape with excellent resistance to most chemicals used in typical electroplating processes.

- ▶ Excellent resistance to most chemicals used in typical electroplating operations
- ▶ Prolonged exposure to elevated temperatures (above 250°F/121°C) and hot caustics may cause weakening of the adhesive bond
- ▶ Resists most common solvents, care should be taken to avoid ketones, chlorinated hydrocarbons, and esters, found in lacquer thinners, degreasers, paint strippers, etc., which may cause the backing to swell or curl
- ▶ Vinyl backing is conformable
- ▶ Backing accepts marker ink and is printable in using the thermal transfer process

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Backing Thickness mil (mm)	Liner Thickness mil (mm)	Adhesive	Total Tape Thickness w/o liner mil (mm)	Tensile Strength oz/in (N/cm)	Peel Adhesion oz/in (N/cm)	Elongation (%)	Temperature Use Range °F (°C)	Colour
ASTM	D3652	D3652			D3759	D-3330*	D3759		
Vinyl	6.3 (0.16)	6.1 (0.15)	Rubber	7.1 (0.18)	320 (35)	37 (4)	180	Up to 250 (Up to 121)	Tan

\*Peel adhesion to stainless steel



EMEA Product Catalogue



Tapes for Metal Processing

## 3M™ Glass Cloth Tape 361



Constructed with a woven fibreglass backing, 3M™ Glass Cloth Tape 361 features a pressure sensitive silicone adhesive for applications requiring high-temperature resistance, high adhesion and clean removal. It is often used for high temperature applications such as sealing ducts and as a back-up strip for submerged arc welding.

- ▶ Strong abrasion resistant backing provides strength for bundling, harnessing and protection applications requiring high tensile strength
- ▶ Silicone adhesive provides good holding power and clean removal across a wide range of temperatures
- ▶ Withstands temperatures from -65°F/-54°C to 450°F/232°C and intermittent temperatures up to 550°F/288°C or higher, depending on the type and duration of the heat source
- ▶ Flame and plasma spray resistant
- ▶ Used for permanent sealing of high temperature ducts or chambers
- ▶ Meets F.A.R. 25.853 specification

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Adhesive Type	Total Thickness mm	Tensile Strength N/cm	Peel Adhesion N/cm	Elongation (%)	Temperature Use Range °C	Standard Roll Length m	Colour
ASTM		D-3652	D-3759	D-3330*	D-3759			
Glass Cloth	Silicone	0.16	255.7	4.2	9	-54 to 232	55	White

\*Peel adhesion to stainless steel



EMEA Product Catalogue



Tapes for Metal Processing



Product Flyer: Tape 361

## 3M™ Polyester Tape 8991



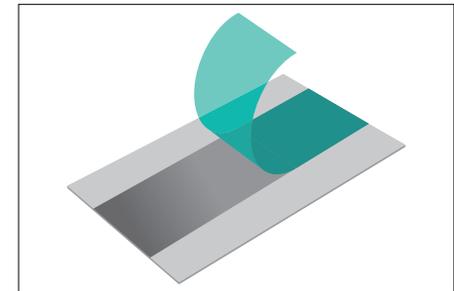
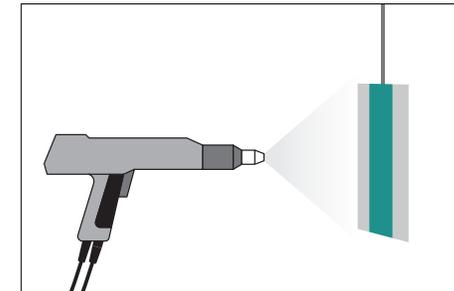
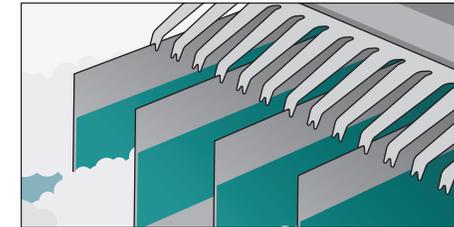
A general purpose polyester tape ideal for masking in high temperature applications. Coated with a silicone adhesive, this tape functions well in masking for powder coating and anodising to provide sharp paint lines. It removes cleanly and in one-piece from most surfaces, avoiding slivering and breaking.

- ▶ Works in demanding conditions and high temperatures ranging from -60°F (-50°C) to 400°F (204°C)
- ▶ Clean removal during high-temperature masking operations such as powder coating
- ▶ Polyester film offers excellent thermal and chemical resistance while maintaining flexibility
- ▶ Silicone adhesive provides clean removal from a variety of surfaces
- ▶ Translucent blue backing provides easy identification and positioning

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Adhesive Type	Total Thickness mil (mm)	Tensile Strength N/cm	Peel Adhesion N/cm	Elongation (%)	Colour
ASTM		D-3652	D-3759	D-3330*	D-3759	
Polyester	Silicone	0.061	50.8	3.4	100	Blue

\*Peel adhesion to stainless steel



EMEA Product Catalogue



Tapes for Metal Processing



Product Flyer: Tape 8991

## 3M™ Foil Tapes 425/427 (Linered Version)



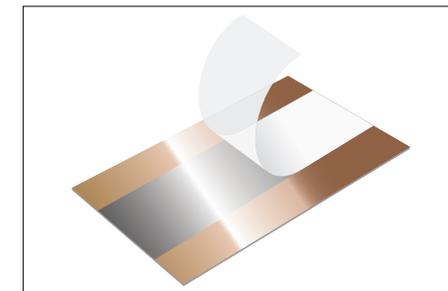
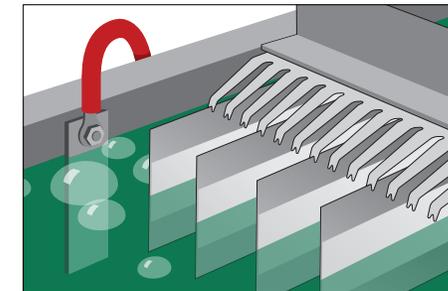
A foil tape for numerous applications across a broad range of industries. Comprised of a dead soft aluminium foil backing and coated with a highly engineered pressure sensitive acrylic adhesive, it is ideal for heat shielding, heat reflecting, chemical masking, light enhancement, chemical milling, seaming, sealing and de-paint operations

- ▶ High thermal conductivity enhances heating or cooling efficiency
- ▶ High heat reflectivity and flame resistance protects temperature sensitive materials against heat and flame damage and hot spots
- ▶ Resistant to chemicals to protect surfaces during de-paint process and other chemical masking operations
- ▶ Seal and protect against moisture, solvents and dust
- ▶ Highly engineered acrylic adhesive provides long term durability, but removes cleanly after harsh masking applications
- ▶ Good candidate as a maskant in electroplating of aluminium because it will not contaminate the bath

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes

Adhesive Type	Total Thickness mm	Tensile Strength N/cm	Peel Adhesion N/cm	Elongation (%)	Temperature Use Range °C	Standard Roll Length m	Colour
ASTM	D-3652	D-3759	D-3330*	D-3759			
Vinyl	0.12 (425) 0.2 (427)	49	5.1 (425) 5.5 (427)	6	-55 to 150	55	Silver

\*Peel adhesion to stainless steel



EMEA Product Catalogue



Tapes for Metal Processing



Product Flyer: Tape 425/427

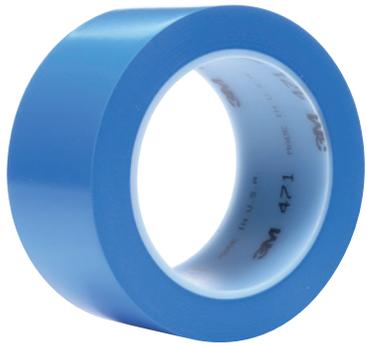
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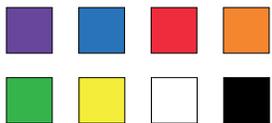
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## 3M™ Vinyl Tape 471



A conformable vinyl tape with a versatile rubber adhesive. The moderately translucent backing allows for accurate alignment in simple or complex patterns.

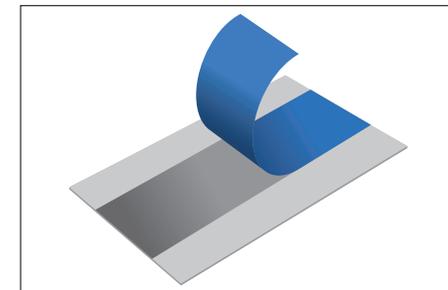
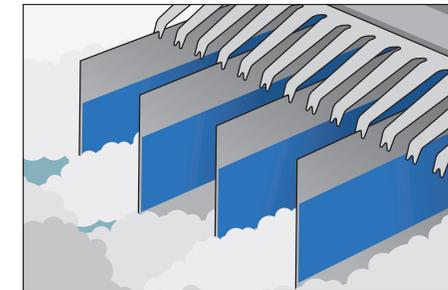
- ▶ Available in a wide variety of vivid colours for diverse applications
- ▶ Unique stretch properties enable tape to remain stretched to conform to uneven surfaces without lifting and retracting
- ▶ One-piece, clean removal from many surfaces which helps reduce clean-up and labour costs
- ▶ Rubber adhesive provides excellent holding strength on many surfaces
- ▶ Features high abrasion resistance
- ▶ Maintains its colour when exposed to abrasion, wear and many solvents
- ▶ It can be used in corrosion sensitive applications



Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Adhesive Type	Total Tape Thickness mil (mm)	Tensile Strength oz/in (N/cm)	Peel Adhesion oz/in (N/cm)	Elongation (%)	Temperature Use Range °F (°C)	Standard Roll Length yd (m)	Colour
ASTM		D3652	D-3759	D-3330*	D-3759			
Vinyl	Rubber	5.2 (0.14)	224 (24.5)	35 (3.8)	191	40 to 170 (4 to 77)	36 (32.9)	Yellow, white, red, black, brown, green, orange, purple, blue

\*Peel adhesion to stainless steel



EMEA Product Catalogue



Tapes for Metal Processing



Product Flyer: Speciality Six: Tape 471

Alternative options

3M™ Vinyl Tape 471+

3M™ Electroplating Tape 470

3M™ Polyester Tape 8992

3M™ High Performance Industrial Masking Tape 401E

## 3M™ High Temperature Aluminium Foil/Glass Cloth Tape 363



Strong and flexible, our 3M™ High Temperature Aluminium Foil/Glass Cloth Tape 363 consists of an aluminium foil, glass cloth backing combined with a pressure sensitive silicone adhesive. Ideal for use as a protective wrap for heat sensitive instruments exposed to movement and vibration.

- ▶ High tensile strength, glass cloth reinforced foil tape offers puncture, fracture and tear resistance
- ▶ Performs continuously over a wide temperature range from -65°F/-54°C to 600°F/316°C
- ▶ Light and flexible construction easily conforms to curved or irregular surfaces
- ▶ Thermally conductive and reflective backing assists with heat shielding
- ▶ Pressure sensitive silicone adhesive adheres to difficult surfaces, including silicone

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Adhesive Type	Total Thickness mm	Tensile Strength N/cm	Peel Adhesion N/cm	Elongation (%)	Temperature Use Range °C	Standard Roll Length m	Colour
ASTM		D-3652	D-3759	D-3330*	D-3759			
Aluminium foil laminated to glass cloth	Silicone	0.19	236.4	5.7	7	-54 to 316	33	Silver

\*Peel adhesion to stainless steel



EMEA Product Catalogue



Tapes for Metal Processing

## 3M™ Vinyl Tape 471+



A conformable vinyl tape with a versatile rubber adhesive. The moderately translucent backing allows for accurate alignment in simple or complex patterns.

- ▶ Produces a sharp, clean paint line for colour separation
- ▶ Narrow width and conformability for defining intricate patterns
- ▶ Resists lifting from depressed areas or on irregular surfaces
- ▶ Withstands a bake cycle of 250°F (121°C) for 30 minutes and removes cleanly
- ▶ Rubber adhesives adhere well to many surfaces
- ▶ Vinyl backing is abrasion resistant
- ▶ Moderately translucent backing allows proper alignment
- ▶ Strong backing allows one piece removal

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Adhesive Type	Total Tape Thickness mils (mm)	Tensile Strength oz/in (N/cm)	Peel Adhesion oz/in (N/cm)	Elongation (%)	Temperature Use Range °F (°C)	Colour
ASTM		D3652	D3759	D3330*	D3759		
Vinyl	Rubber	5.3 (0.13)	224 (24.5)	35 (3.8)	191	Up to 250 (Up to 121)	Indigo

\*Peel adhesion to stainless steel



EMEA Product Catalogue



471+ Demo

## 3M™ General Purpose Masking Tape 201E

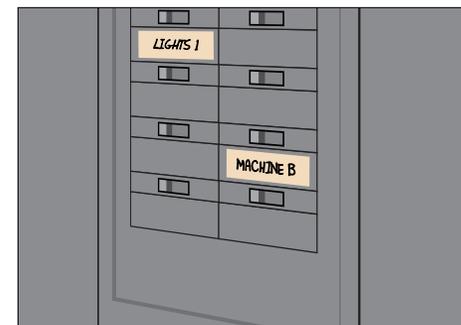
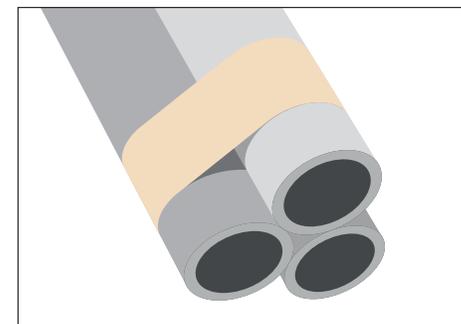


A premium-quality masking tape used for short-term paint masking, fixing, bundling, holding, sealing, and other applications up to a temperature of 80°C for one hour.

- ▶ Good instant adhesion and holding power that resists lifting or curling
- ▶ Reduces paint build-up and provides good paint lines
- ▶ Helps resist paint bleed through
- ▶ Good solvent and moisture resistance

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Adhesive Type	Total Thickness mm	Tensile Strength N/25 mm	Adhesion to Steel N/25 mm	Elongation at Break (%)	Temperature Performance °C	Standard Roll Length m	Colour
AFERA		5006	5004	5001	5004			
Crepe Paper	Rubber	0.135	89	6	10%	80°C for 1 hour	50	Beige



EMEA Product Catalogue



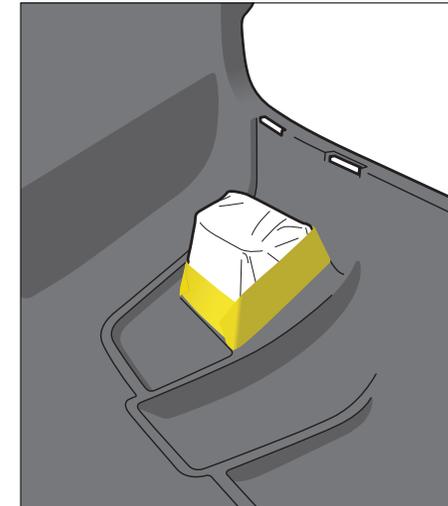
Product Flyer: 201E Masking Tape

## 3M™ Performance Industrial Masking Tape 301E



Designed for industrial paint masking applications. Its temperature performance allows air-drying and oven-curing of paint up to a maximum of 100 °C for 1 hour.

- ▶ Good holding power that resists lifting or curling
- ▶ Good solvent and moisture resistance
- ▶ Crepe paper backing for conformability that will maintain integrity when formed around corners
- ▶ Helps resist paint bleed through to help create good paint lines



Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Material	Adhesive Type	Total Thickness mm	Tensile Strength N/25 mm	Adhesion to Steel N/25 mm	Elongation at Break (%)	Temperature Performance °C	Standard Roll Length m	Colour
AFERA		5006	5004	5001	5004			
Crepe Paper	Rubber	0.150	95	9	10%	100°C for 1 hour	50	Beige



EMEA Product Catalogue

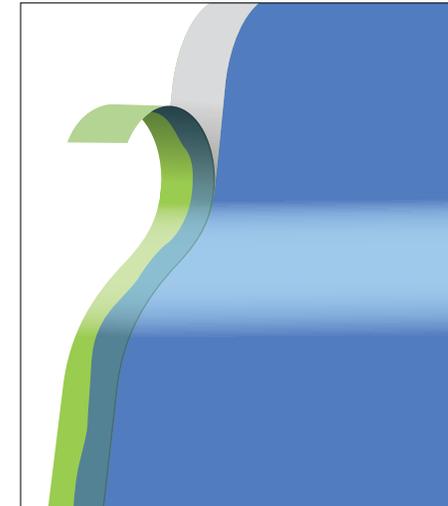


Product Flyer: 301E Masking Tape

## 3M™ High Performance Industrial Masking Tape 401E



- ▶ Provides outstanding quality in all paint applications in the industrial market and in the automotive industry for air-drying and oven-curing of paint up to a maximum of 140 °C for 1 hour.
- ▶ Suitable for all oven-drying systems, infrared, or heat lamps
- ▶ Excellent holding power that resists lifting or curling
- ▶ Good solvent and moisture resistance
- ▶ Crepe paper backing for conformability that will maintain integrity when formed around corners
- ▶ Removes cleanly in one piece with no residue from most surfaces



Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Adhesive Type	Total Thickness mm	Tensile Strength N/25 mm	Adhesion to Steel N/25 mm	Elongation at Break (%)	Temperature Performance °C	Standard Roll Length m	Colour
AFERA		5006	5004	5001	5004			
Crepe Paper	Rubber	0.160	100	10	10%	140°C for 1 hour	50	Tan



EMEA Product Catalogue

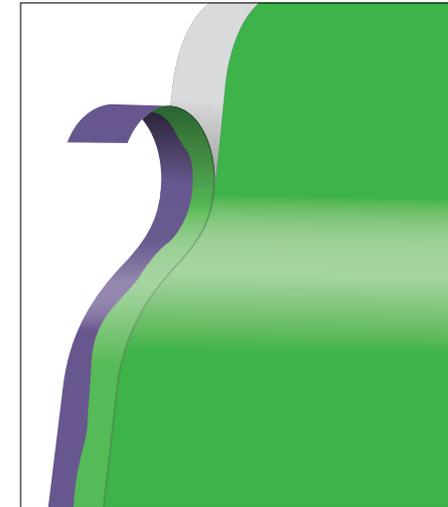


Product Flyer: 401E Masking Tape

## 3M™ Speciality High Temperature Industrial Masking Tape 501E



- ▶ Designed for critical paint masking applications in the industrial markets, automotive, specialty vehicles where excellent holding and high-temperature performance are required
- ▶ Can withstand medium temperature bake ovens up to 160 °C /1h
- ▶ Suitable for UV-curing and bake cycles, oven-drying systems, IR or heat lamps
- ▶ Crepe paper backing for conformability that will maintain integrity when formed around corners
- ▶ Excellent holding power that resists lifting or curling



Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Adhesive Type	Total Thickness mm	Tensile Strength N/25 mm	Adhesion to Steel N/25 mm	Elongation at Break (%)	Temperature Performance °C	Standard Roll Length m	Colour
AFERA		5006	5004	5001	5004			
Crepe Paper	Rubber	0.150	106	11	10%	160°C for 1 hour	50	Beige



EMEA Product Catalogue



Product Flyer: 501E Masking Tape

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## 3M™ VHB™ Tape 4941/4941F



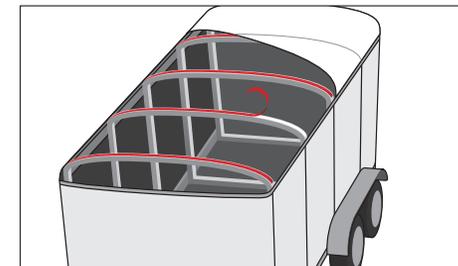
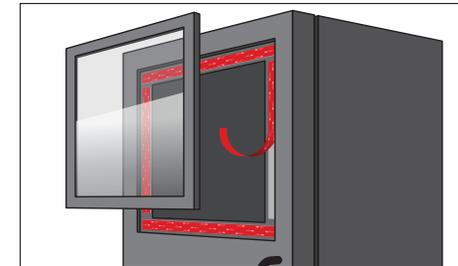
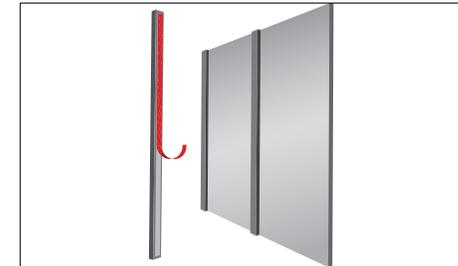
The multi-purpose acrylic adhesive on both sides bonds to a broad range of high and medium surface energy substrates including metals, glass and a wide variety of paints and plastics as well as plasticised vinyl. The conformable foam provides good contact between substrates even when they are slightly mismatched.

- ▶ Fast and easy-to-use permanent bonding method provides high strength and long-term durability
- ▶ Excellent combination of strength, conformability and adhesion to high and medium surface energy materials
- ▶ Can replace mechanical fasteners (rivets, welds, screws) or liquid adhesives
- ▶ Eliminate drilling, grinding, refinishing, screwing, welding and associated clean-up
- ▶ Creates a permanent seal against water, moisture and more

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Adhesive Type	Tape Thickness mil (mm)	Thickness Tolerance (%)	Normal Tensile lb/in <sup>2</sup> (kPa)	90° Peel Adhesion lb/in (N/cm)	Foam Type	Density lb/ft <sup>2</sup> (kg/m <sup>3</sup> )	Liner Material	Liner Thickness in (mm)	Colour
ASTM			D897	D3330*					
Multi-Purpose Acrylic	0.045 (1.1)	±10	85 (590)	22 (39)	Conformable Acrylic Foam	45 (720)	DK Paper	0.003 (0.08)	White (printed)

\*Peel adhesion to stainless steel



EMEA Product Catalogue



Tech Bulletin: 3M™ VHB™ Tape Panel Bonding



3M™ VHB™ Tape Design Guide

Alternative options

3M™ Scotch-Weld™ Metal Bonder Acrylic Adhesive DP8407NS

3M™ Polyurethane Adhesive Sealant 560

3M™ Adhesive Sealant 760 UV

3M™ VHB™ Tape 5952

3M™ VHB™ Tape RP45

3M™ Scotch-Weld™ Low Odour Acrylic Adhesive DP8810NS

3M™ Dual-Lock™ Reclosable Fastener SJ3550

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## 3M™ VHB™ Tape GPH-110GF



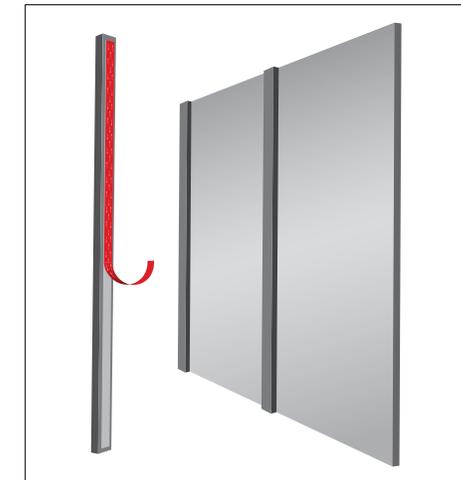
Conformable foam provides good contact between substrates even when they are slightly mismatched. Bonds to a variety of substrates including many metal, plastic and painted materials. Ideal for pre-powder coat or liquid paint stiffener bonding in equipment enclosures, metal cabinets, appliance, signage, etc.

- ▶ Fast and easy-to-use permanent bonding method provides high strength and long-term durability
- ▶ Superior high-temperature resistance of 450°F for bonding prior to powder coat or liquid paint processes
- ▶ Virtually invisible fastening keeps surfaces smooth
- ▶ Can replace mechanical fasteners (rivets, welds, screws) or liquid adhesives
- ▶ Eliminates drilling, grinding, refinishing, screwing, welding and associated re-work
- ▶ Creates a permanent seal against water, moisture and more
- ▶ Pressure sensitive adhesive bonds on contact to provide immediate handling strength
- ▶ Allows the use of thinner, lighter weight and dissimilar materials

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Adhesive Type	Adhesive Carrier	Total Tape Thickness in (mm)	Liner Material	Tensile Strength lb/ft <sup>2</sup> (kg/m <sup>2</sup> )	90% Peel Adhesion lb/in (N/cm)	Colour
ASTM		D3652		D897	D3330*	
Acrylic	Conformable Acrylic Foam (closed cell)	0.045 (1.1)	Red PE film with 3M™ VHB™ Tape print	45 (710)	21 (37)	Grey

\*Peel adhesion to stainless steel



EMEA Product Catalogue



Product Flyer: GPH



3M™ VHB™ Tape Design Guide



Tech Bulletin: 3M™ VHB™ Tape Panel Bonding



Testimonial: WS Steel

Alternative options

3M™ VHB™ Tape 4941

3M™ VHB™ Tape RP45

3M™ Scotch-Weld™ Metal Bonder Acrylic Adhesive DP8407NS

3M™ Scotch-Weld™ Low Odour Acrylic Adhesive DP8810NS

## 3M™ VHB™ Tape RP45



A thick, grey, double-coated acrylic foam tape with paper liner. The multi-purpose acrylic adhesive on both sides bonds to a broad range of high and medium surface energy substrates including metals, glass and a wide variety of paints and plastics. The conformable foam provides good contact between substrates even when they are slightly mismatched. Fast and easy-to-use permanent bonding method provides high strength and long-term durability

- ▶ Virtually invisible fastening keeps surfaces smooth
- ▶ Can replace mechanical fasteners (rivets, welding, screws) or liquid adhesives
- ▶ Eliminate drilling, grinding, refinishing, screwing, welding and clean-up
- ▶ Creates a permanent seal against water, moisture and more
- ▶ Pressure sensitive adhesive bonds on contact to provide immediate handling strength

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Liner Material	Adhesive Type	Tape Thickness in (mm)	Liner Thickness in (mm)	Liner Colour	Tensile Strength lb/in <sup>2</sup> (kPa)	Peel Adhesion lb/in (N/cm)	Foam Type	Colour
ASTM					D897	D3330*		
DK Paper	Multi-Purpose Acrylic	0.045 (1.1)	0.003 (0.08)	White (printed)	85 (590)	20 (35)	Conformable Acrylic	Grey

\*Peel adhesion to stainless steel



EMEA Product Catalogue



3M™ VHB™ Tape Design Guide



White Paper: Combo Build



Testimonial: WS Steel



Testimonial: H&H

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## 3M™ VHB™ Tape 5952



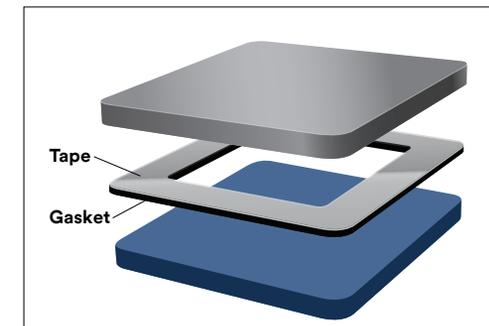
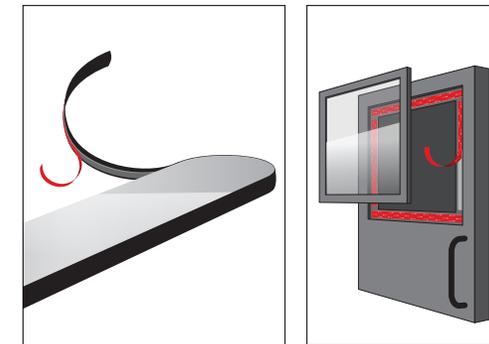
A modified acrylic adhesive on both sides bonds to a broad range of high, medium and medium/low surface energy substrates including metals, glass and a wide variety of plastics and paints, including many powder coated paints. The very conformable foam provides good contact between substrates even when they are slightly mismatched.

- ▶ Fast and easy-to-use permanent bonding method provides high strength and long-term durability
- ▶ Good adhesion to many painted surfaces, including powder coated paint
- ▶ Can replace mechanical fasteners (rivets, welding, screws) or liquid adhesives
- ▶ Modified acrylic adhesive and very conformable acrylic foam core bonds to a wide variety of substrates eliminate drilling, grinding, refinishing, screwing, welding and clean-up
- ▶ Creates a permanent seal against water, moisture and more by offering better gap filling capabilities

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Liner Material	Liner Thickness in (mm)	Tape Thickness in (mm)	Thickness Tolerance	Adhesive Type	Short Term Temperature Tolerance °F (°C)	Long Term Temperature Tolerance °F (°C)	Peel Adhesion lb/in (N/cm)	Normal Tensile lb/in <sup>2</sup> (kPa)	Dynamic Overlap Shear lb/in <sup>2</sup> (kPa)
ASTM							D3330*	D897	D1002
PE Film	0.005 (0.13)	0.045 (1.1)	±10 %	Modified Acrylic	300 (149)	250 (121)	22 (139)	90 (620)	80 (550)

\*Peel adhesion to stainless steel



EMEA Product Catalogue



3M™ VHB™ Tape Design Guide



Testimonial: H&H



Testimonial: Showhauler



Combo Build

Alternative options

3M™ VHB™ Tape 4941

3M™ VHB™ Tape RP45

3M™ Adhesive Transfer Tape 950

Scotch® ATG Adhesive Transfer Tape 926

3M™ Adhesive Transfer Tape 9472LE

3M™ Double Coated Tape 9832

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## 3M™ VHB™ Tape 4910F



Fast and easy to use permanent bonding method provides high strength and long-term durability. It offers design flexibility with its viscoelasticity and powerful ability to bond to a variety of surfaces. It utilises general purpose acrylic adhesive on both sides of a firm, foam core. Commonly used in applications to join transparent material or where clear or colourless tape is preferred.

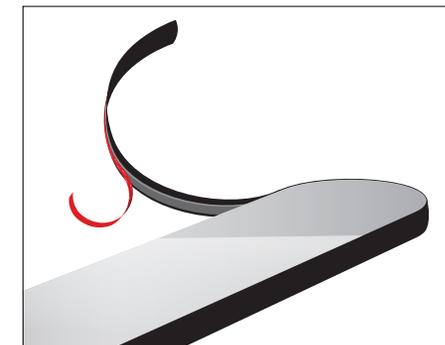
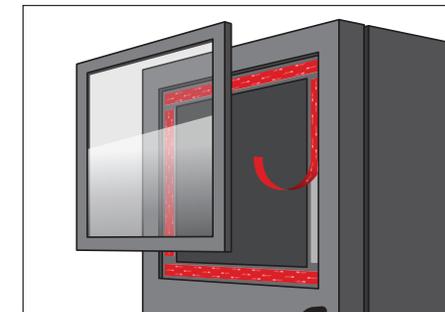
- ▶ Fast and easy-to-use permanent bonding method provides high strength and long-term durability
- ▶ Clear construction allowing joining of transparent material and virtually invisible bondline
- ▶ Can replace mechanical fasteners (rivets, welding, screws) or liquid adhesives
- ▶ Creates a permanent seal against water, moisture and more
- ▶ Pressure sensitive adhesive bonds on contact to provide immediate handling strength
- ▶ Allows the use of thinner, lighter weight and dissimilar materials

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Liner Material	Liner Thickness in (mm)	Tape Thickness in (mm)	Thickness Tolerance	Adhesive Type	Short Term Temperature Tolerance °F (°C)	Long Term Temperature Tolerance °F (°C)	Peel Adhesion lb/in (N/cm)	Normal Tensile lb/in <sup>2</sup> (kPa)	Dynamic Overlap Shear lb/in <sup>2</sup> (kPa)
ASTM							D3330*	D897**	D1002*
PE Film	0.005 (0.13)	0.040 (1.0)	±10 %	General Purpose Acrylic	300 (149)	250 (121)	15 (26)	100 (690)	70 (480)

\*Stainless steel substrate for 72 hours @ room temperature

\*\*Aluminium substrate for 72 hours @ room temperature



EMEA Product Catalogue



3M™ VHB™ Tape Design Guide



Tech Bulletin: 3M™ VHB™ Tape Panel Bonding



Brochure: Smooth Sided Trailer



Testimonial: WS Steel

Alternative options

3M™ VHB™ Tape 5952

3M™ VHB™ Tape RP45

3M™ Adhesive Transfer Tape 950

Scotch® ATG Adhesive Transfer Tape 926

3M™ Adhesive Transfer Tape 9472LE

3M™ Double Coated Tape 9832

## 3M™ Scotch-Weld™ Metal Bonder Acrylic Adhesive DP8407NS



Grey structural adhesive with high overlap shear and peel strength with good impact resistance and durability. This adhesive was designed to bond permanently to bare metals with minimal surface preparation, but also bonds well to wide variety of other materials, including most plastics.

- ▶ Bonds to a variety of substrates (especially bare metals) while resisting corrosion
- ▶ Withstands powder coat and paint bake cycles up to 400°F (204°C) for at least one hour
- ▶ Offers high shear, peel and impact strength for a tough and durable bond
- ▶ Provides excellent bond strength and impact resistance, even at temperatures down to -40°F (-40°C)
- ▶ 6 minute work life and fast strength build-up at room temperature
- ▶ Ideal for industrial applications with minimal surface preparation, such as slightly oily metal bonding
- ▶ Moderate non-sag formula won't slump or spread excessively
- ▶ Long shelf life, no refrigeration



Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Colour	Mix Ratio (Volume) B:A	Approx. Mixed Work Life 72°F (22°C)	Approx. Time to Handling Strength 72°F (22°C)	Approx. Full Strength Cure Time 72°F (22°C)	Elongation at Break 72°F (22°C)	Overlap Shear Strength (lb/in <sup>2</sup> )*							
						Aluminium -40°F (-40°C)	Aluminium 180°F (82°C)	Galvanised Steel	Stainless Steel	Cold Rolled Steel	Copper	ABS	Brass
Grey	10:01	5-7 Mins	22-26 Mins	24 Hours	10%	3400 CF	1400 CF	3400 CF	3800 CF	3500 CF	1900 AF	1000 SF	1700 AF

\*Dwell/Cure Time: 1 min open time, 24 cure @ room temperature unless otherwise noted. Surface Preparation: Abraded and solvent wiped.

KEY: SF – Substrate Failure CF – Cohesive Failure AF – Adhesive Failure



# Thin Gauge Metals

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## 3M™ Scotch-Weld™ Epoxy Adhesive DP490



3M™ Scotch-Weld™ Epoxy Adhesive 490 is a black, thixotropic, gap filling two component epoxy adhesive with particularly good application characteristics. It is designed for use where ultimate toughness and high strength are required.

High temperature resistance up to 120°C. High resistance to impact and outstanding stability under static and dynamic loads. Very good strength and aging characteristics. Thixotropic formulation enables easy application to vertical surfaces. It shows special benefits in the construction of composite assemblies. The product has excellent heat and environmental resistance.

- ▶ 3M™ DP490 has a thixotropic formulation, and its non-sag properties enable easy application to vertical surfaces
- ▶ Scotch-Weld™ DP490 Adhesive has outstanding environmental resistance, outstanding stability under static and dynamic loads, and outstanding resistance to impact and heat (120°C)
- ▶ Bonds difficult surfaces such as powder coats and most plastics
- ▶ High peel and shear strength for strong bonds in critical applications



Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Product (colour)	Key Features	Mix Ratio (Volume) B:A	Approx. Viscosity at 24°C	Approx. Mixed Work Life at 24°C	Approx. Time to Handling Strength at 24°C	Floating Roller Peel N/cm at 24°C	Overlap SHEAR: MPa		
							-55°C	24°C	82°C
DP490 (Black)	Tough durable bonds	2:1	90,000	90 minutes	4 hours	60	25	31	14



EMEA Product Catalogue



Customer Testimonial

## 3M™ Scotch-Weld™ Low Odour Acrylic Adhesive DP8810NS

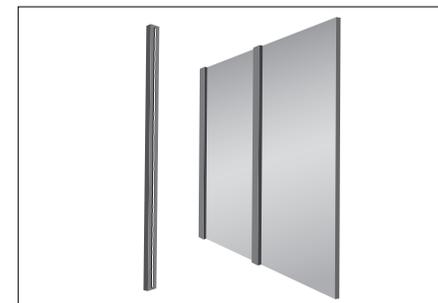
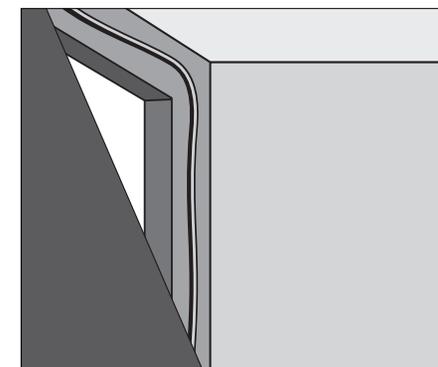


A high performance, two-part acrylic adhesives that offer excellent shear, peel, and impact performance. These toughened products provide improved adhesion to many plastics and metals, including slightly oily surfaces. These durable products feature a fast rate of strength build, providing structural strength in minutes. Their low odour and non-flammability features also make them easier to incorporate into a manufacturing process.

- ▶ Toughened
- ▶ Excellent shear strength
- ▶ High peel and impact strength
- ▶ 10:1 mix ratio control bond line thickness
- ▶ Variety of open times available
- ▶ Increased cure speed with applied heat
- ▶ Contain glass beads (0.010" diametre) to control bond line thickness
- ▶ Note: Unless otherwise indicated, all properties measured at 72°F (22°C)

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Colour	Accelerator Colour	Base Density (g/cm <sup>2</sup> )	Accelerator Density (g/cm <sup>2</sup> )	Base Viscosity (cP)	Accelerator Viscosity (cP)	Mix Ratio by Volume (B:A)	Mix Ratio by Volume (B:A)
Green	Blue	1.06	1.08	45,000	15,000	10:1	10:1



EMEA Product Catalogue



Acrylic Adhesives



Animation: H-Vac



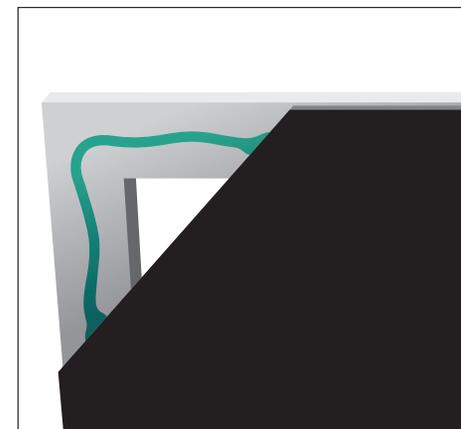
Impact Strength of Acrylic Adhesives

## 3M™ Scotch-Weld™ Multi-Material Composite Urethane Adhesive DP6310NS



A multi-purpose urethane adhesive for bonding a variety of composites, plastics, metals and wood. It is a high-strength bonder with some flexibility to accommodate thermal expansion and contraction differences with dissimilar material bonding

- ▶ Ability to bond most composites and dissimilar substrates
- ▶ Primerless to most surfaces
- ▶ Non-sag formulation resists running and slumping of adhesive
- ▶ Excellent water and humidity resistance, very good chemical resistance
- ▶ Solvent-free adhesive system
- ▶ Convenient hand-held applicator
- ▶ Room temperature cure
- ▶ Cure can be accelerated with heat



Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Base Colour	Accelerator Colour	Base Density lb/gal	Accelerator Density lb/gal	Viscosity	Base Viscosity cP °F (°C)	Accelerator Viscosity cP °F (°C)	Mix Ratio by Volume (B:A)	Mix Ratio by Weight (B:A)
Green	Off-White	10–11	10.5–11.5	Non-sag paste	15,000–35,000 80 (27)	12,000–20,000 80 (27)	1:1	1:1.09



[EMEA Product Catalogue](#)



[Bonding Composite Parts](#)



[White Paper: Joining and Bonding of Composite Parts](#)



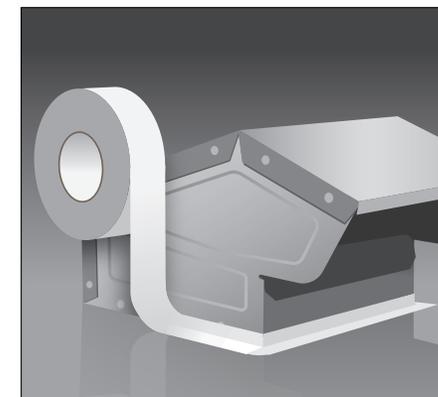
[Multi-Material Composite Adhesives](#)

## 3M™ Extreme Sealing Tape 4412N/4412G



Designed for difficult sealing applications. It conforms over fasteners, seams, joints, holes and gaps to ensure a long-lasting seal on a variety of substrates. The durable, abrasion resistant backing makes this tape a good choice for outdoor applications where exposure to weather is a concern. Since it can be painted, you can match most existing colours to blend seamlessly into the surrounding area while retaining the water-tight bond.

- ▶ Sticks on contact to many metals, plastics and other hard-to-stick-to surfaces
- ▶ Provides immediate seal with no wait time or oozing associated with liquid sealants
- ▶ Tough, yet flexible clear ionomer backing is abrasion resistant and instantly paintable
- ▶ Acrylic adhesive provides excellent sealing qualities and good outdoor durability



Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Product	Backing Material	Adhesive Type	Total Thickness mil (mm)	Tensile Strength lb/in (N/cm)	Peel Adhesion lb/in (N/cm)	Elongation (%)	Colour
ASTM			D-3652	D-3759	D-3330*	D-3759	
4412N	Lomer Backing	Acrylic	80 (2.0)	13 (23)	18 (32)	400%	Translucent
4412G							Grey

\*Adhesion to stainless steel substrate. Surface prepared with 3M™ Adhesion Promoter 111.



EMEA Product Catalogue



Product Flyer: Extreme Sealing Tape



Phone Script: Extreme Sealing Tape

## 3M™ Polyurethane Adhesive Sealant 560

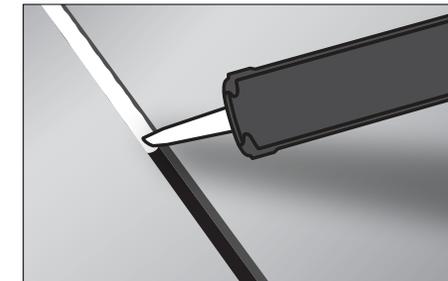
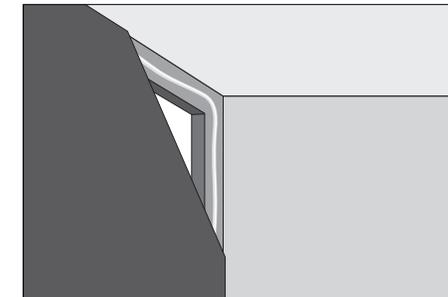


High-strength, single-component, moisture-curing, gap-filling polyurethane adhesive that creates high strength bonds on a wide variety of materials including plastics, metals, fibreglass and wood.

- ▶ High strength bonding to replace mechanical fasteners and rivets
- ▶ Permanently elastic to allow joint movement
- ▶ 50-60 minute skin time; paintable once skin forms
- ▶ Good UV resistance
- ▶ One component, moisture-curing sealant simplifies production
- ▶ Bonds dissimilar materials for increased design flexibility
- ▶ Gap filling capability
- ▶ Features mid-range Shore A hardness

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Consistency	Tensile Strength lb/in <sup>2</sup> (MPa)	Elongation at Break	Hardness (Shore A)	Tack Free Time	Cure Rate mm (hr)	Temperature °F (°C)	
						Application	Service
ASTM	D412	D412	C661				
Medium paste	580 (4)	300%	55	50–60 min	4 (24)	40–95 (5–35)	-40–194 (-40–90)



EMEA Product Catalogue



3M Adhesive Sealants

## 3M™ Polyurethane Adhesive Sealant 540

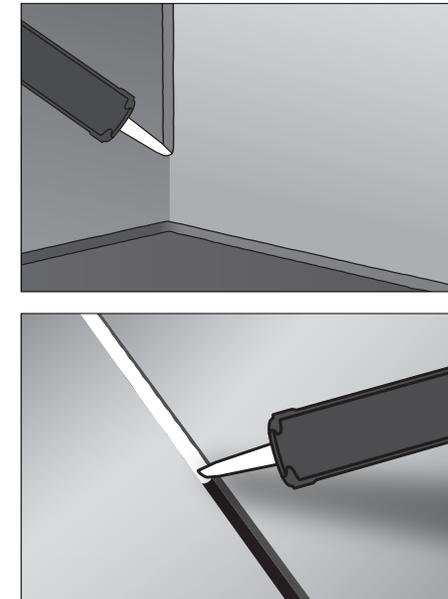


A one component, moisture curing products which forms permanent elastic bonds to a wide variety of materials including plastics, metals, fibreglass, and wood.

- ▶ Multi-purpose bonding and long lasting seals
- ▶ Permanently elastic to allow joint movement
- ▶ 60-90 skin time; paintable, once skin forms
- ▶ Good UV resistance
- ▶ Bonds dissimilar materials for increased design flexibility
- ▶ Gap filling capability

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Consistency	Tensile Strength lb/in <sup>2</sup> (MPa)	Elongation at Break	Hardness (Shore A)	Tack-Free Time	Cure Rate mm (hr)	Temperature °F (°C)	
						Application	Service
ASTM	D412	D412	C661				
Medium paste	300 (2.1)	600%	40	60–90 min	3 (24)	40–95 (5–35)	-40–194 (-40–90)



EMEA Product  
Catalogue



3M Adhesive  
Sealants

## 3M™ Adhesive Sealant 760 UV

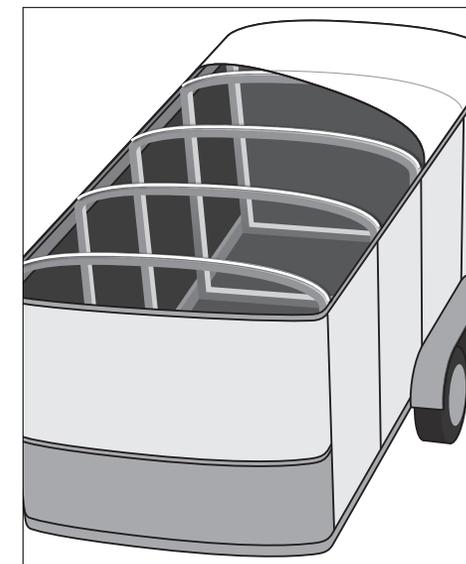


A one component, moisture curing product which forms permanent elastic bonds. They are similar in function as a typical one component polyurethane sealant but are isocyanate-free. 3M Adhesive Sealant 760 UV bonds to a wide variety of materials including metals, plastics, fibreglass and wood. Differentiated from other high performance sealants as it is very low VOC, has better UV resistance, and has broad substrate adhesion for a wide range of productivity enhancement applications.

- ▶ One component, moisture-curing
- ▶ Bonds dissimilar materials
- ▶ Adheres to a wide variety of materials
- ▶ Permanently elastic
- ▶ Fast-skinning
- ▶ Paintable when wet
- ▶ Cures clear

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Consistency	Tensile Strength lb/in <sup>2</sup> (MPa)	Elongation at Break (%)	Hardness (Shore A)	Tack Free Time (min)	Cure Rate per 24 hr in (mm)	Temperature °F (°C)	
						Application	Service
ASTM	D412	D412	C661				
Thick Paste	400 (2.6)	195	55	10 to 30	>1/8 (>3.5)	40-95 (5-35)	-40-212 (-40-100)



EMEA Product Catalogue



3M Adhesive Sealants

## 3M™ Scotch-Weld™ Epoxy Adhesive 7240



3M™ Scotch-Weld™ 7240 FR B/A epoxy adhesive is a toughened, two-part epoxy adhesive with a 2:1 mix ratio, 45 minutes work life and handling strength in approximately 6 hours. This product is very durable and commonly used in applications in the transportation industry. With high peel and shear strength 3M™ Scotch-Weld™ Epoxy Adhesive 7240 FR maintains lasting bonds in tough environmental conditions. It works well on metals and many composites.

- ▶ Excellent environmental resistance tested in a variety of demanding conditions
- ▶ Contains 300 µm glass beads for accurate glue line control
- ▶ Tested to FAR25 (vertical burn) and meets the 15 second self-extinguishing requirement
- ▶ Tested to EN 45545 for the Railway market

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Product (colour)	Key Features	Mix Ratio (Volume) B:A	Approx. Viscosity at 24°C	Approx. Mixed Work Life at 24°C	Approx. Time to Handling Strength at 24°C	Floating Roller Peel N/cm at 24°C	Overlap SHEAR: MPa		
							-55°C	24°C	82°C
7240	Tough durable bonds	2:1	120,000	45 minutes	6 hours	92	18	27	12



EMEA Product Catalogue

## 3M™ Adhesive Sealant 740 UV

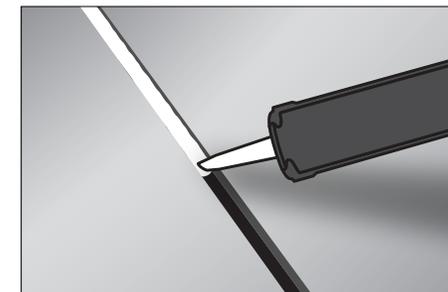
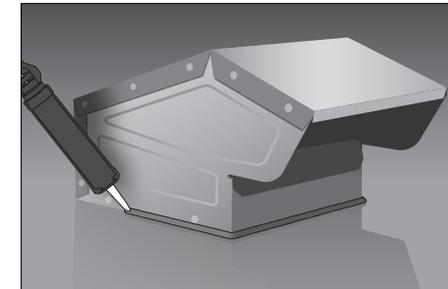


A one component, moisture curing product which forms permanent elastic bonds. It is similar in function as a typical one component polyurethane sealant but is isocyanate-free. It bonds to a wide variety of materials including plastics, metals, fibreglass, and wood. Differentiated from other high performance sealants as they are very low VOC, have better UV resistance, and have broad substrate adhesion for a wide range of productivity enhancement applications.

- ▶ Excellent UV resistance
- ▶ Permanently elastic to allow joint movement
- ▶ 40-60 minute skin time, paintable immediately
- ▶ Silane Modified Polymer (SMP) adhesive sealant
- ▶ Low VOC
- ▶ Gap filling capabilities

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Tack Free Time (min)	Rate of Cure in (mm) per 24 hour	Modulus at 100% Elongation lb/in <sup>2</sup> (mPa)	Elongation at Break (%)	Hardness (Shore A)	Tensile Strength lb/in <sup>2</sup> (mPa)	Service Temperature Range °F (°C)	Application Temperature °F (°C)
ASTM		D412	D412	C661	D412		
40-60	.125 (>3.5)	70 (>0.5)	125	30	165 (1.12)	-40-194 (-40-90)	40-95 (5-35)



EMEA Product Catalogue



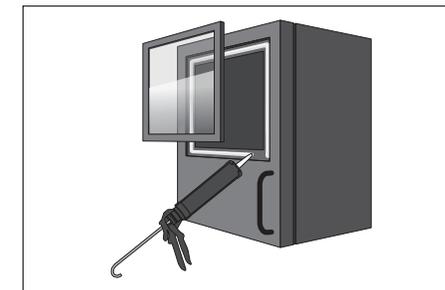
3M Adhesive Sealants

## 3M™ Polyurethane Glass Adhesive Sealant 590



3M™ Polyurethane Glass Adhesive Sealant 590 is a one-part, high viscosity polyurethane sealant for bonding windshields and other glass, acrylic, polycarbonate and many other materials. This high strength adhesive stays flexible after cure, resulting in a durable, long-lasting bond that helps joints or bonded areas resist vibration fatigue.

- ▶ 3 hour drive-away time and 25 - 40 minute skin time
- ▶ Crash tested to FMVSS 212, suitable for structural glass bonding
- ▶ Structural windshield installations
- ▶ PMMA windshield applications
- ▶ Hard-to-bond polycarbonates and acrylics flush-mounted glass for both marine and automotive use



[EMEA Product Catalogue](#)



[3M™ Polyurethane Glass Adhesive Sealant 590](#)



[3M™ Polyurethane Glass Adhesive Sealant 590](#)

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## 3M™ Holdfast 70 Spray Adhesive

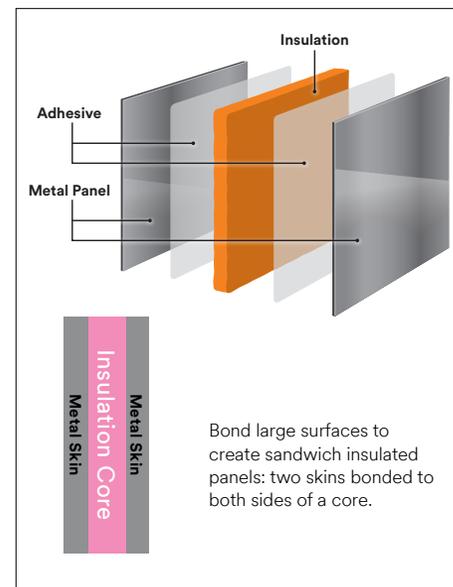


Extremely versatile, fast tacking industrial grade spray adhesive with unique wide-web spray pattern. Creates quick permanent one and two-surface bonds on many construction materials including polystyrene.

- ▶ Requires a short dry time yet provides long open time to perfectly position your materials
- ▶ Unique heavy body spray pattern with low soak-in and no overspray
- ▶ Ideally suited for irregular or porous substrates
- ▶ Bonds polystyrene without damaging the material or degrading the surface
- ▶ Portable cylinder for an easy to use, maintenance-free delivery system

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Colour	Density g/cm <sup>3</sup>	Solids Content by Weight (%)	VOC g/L	Coverage m <sup>2</sup>	Spray Pattern	Dry Time sec (min)	Shear Adhesion Failure Test (SAFT) °C
Translucent	0.68	21	544	3.53	Lace	30 (1)	88



PDF  
EMEA Product Catalogue

3M.com  
HoldFast 70

## 3M™ Fast Tack 1000NF Water-Based Adhesive

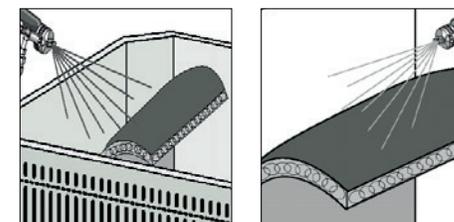
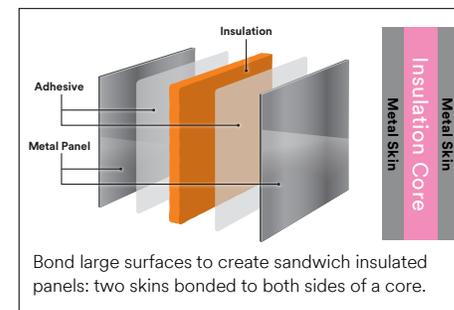


A high performance water-based, one part adhesive formulated for fast bonding and long term heat resistant bonds. Adheres to many types of flexible foam, latex foams, fabric, polyester fibrefill, wood, plywood, particleboard and many plastic and metal surfaces.

- ▶ Fast bonding. Depending on substrates, handling strength bonds can be made without complete drying
- ▶ Repositionable while adhesive is wet and aggressively tacky
- ▶ Long term stable bonds. Good heat resistance
- ▶ Bonds most foamed plastics, plastic laminates, wood, plywood and canvas to themselves and to each other
- ▶ Performs best when at least one substrate is porous
- ▶ Non-flammable in the wet state
- ▶ Acrylic based. Contains no polychloroprene. Contains no natural rubber latex
- ▶ GREENGUARD certified

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Colour	Solids content by weight (%)	pH	Coverage m <sup>2</sup> /lt	Viscosity cP	Base
Clear, purple	46 – 51	4.5 – 6.0	17.6	400 - 1100	Acrylic Emulsion



3M™ Fast Tack 1000NF Water-Based Adhesive



# Thin Gauge Metals

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Disclaimer

## 3M™ Sprayable Hot Melt Adhesive 6111 HT

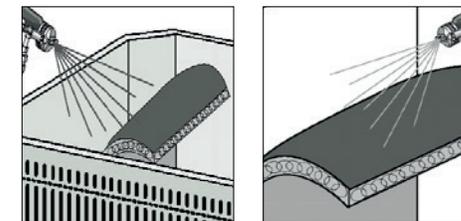
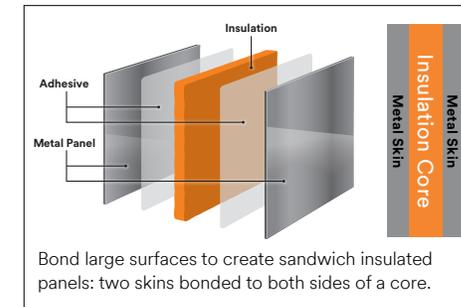


3M™ Sprayable Hot Melt Adhesive 6111 HT is a high-strength, high-temperature-resistant adhesive used to bond most foams, fabrics, particle board and thin metal. This non-volatile, 100% solids sprayable thermoplastic adhesive requires no drying time with minimal overspray, providing a more sustainable solution for increasing productivity.

- ▶ Sprayable, 100% solids adhesive without volatiles
- ▶ Offers excellent adhesion to polypropylene and other low surface energy (LSE) plastics
- ▶ Extended open time allows for large surface assembly
- ▶ Features high temperature resistance
- ▶ Compatible with heat sensitive surfaces
- ▶ Bonds wide variety of substrates, including most foams, plastics, particle board, light gauge metals

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Colour	Flashpoint	Application Temperature	Open Time (Surface 1 to Surface 2)	Viscosity cP at Application Temperature	Base
Tan, blue	276 °C	177 – 196 °C	Foam to PVC: 3 minutes Foam to Foam: 8 minutes	2500 - 4500	Polyolefin copolymer thermoplastic



3M™ Sprayable Hot Melt Adhesive 6111 HT

Alternative options

3M™ Holdfast 70 Spray Adhesive

3M™ Fastbond™ Insulation Adhesive 49

3M™ Fast Tack Water Based Adhesive 1000NF

## 3M™ Super 77™ Multipurpose Spray Adhesive

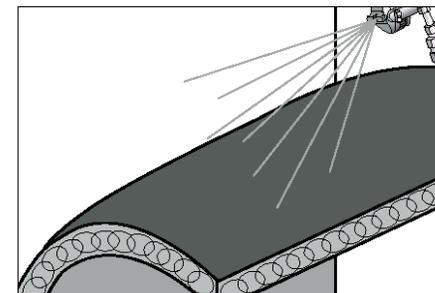
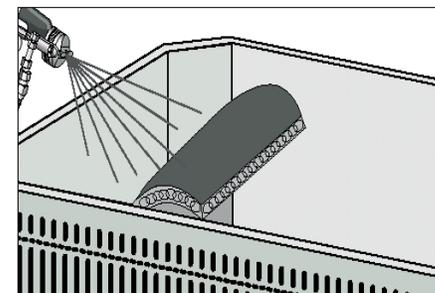


A high tack, high coverage fast drying, versatile adhesive that permanently bonds a wide range of lightweight materials including metal, paper, cardboard, fabric, insulation, plastic, wood and more. The combination of fast tack, strong bond and clean appearance make it ideal for projects of all sizes.

- ▶ It provides high initial “grab” with sufficient open time to allow for positioning of materials
- ▶ Offers a fast, aggressive tack for a quick bond that reduces set time
- ▶ Low soak-in gives better looking and higher coverage bonds
- ▶ Soft, non-dimpling glue lines

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Colour	Density g/cm <sup>3</sup>	Solids Content by Weight (%)	VOC (%)	Coverage m <sup>2</sup>	Hazardous Air Pollutants (HAPS) % by weight	Spray Pattern	Dry Time sec (min)	Shear Adhesion Failure Test (SAFT) °C
Translucent	0.72	25	51	10.59	0.46	Mist	30 (1)	65



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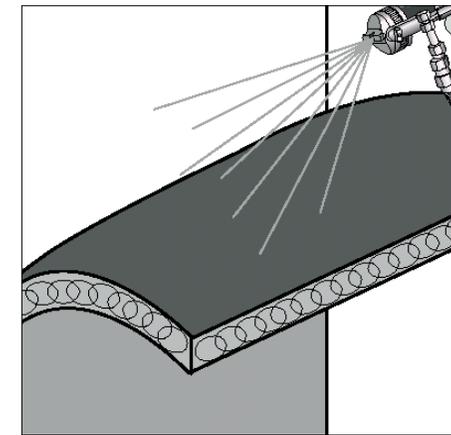
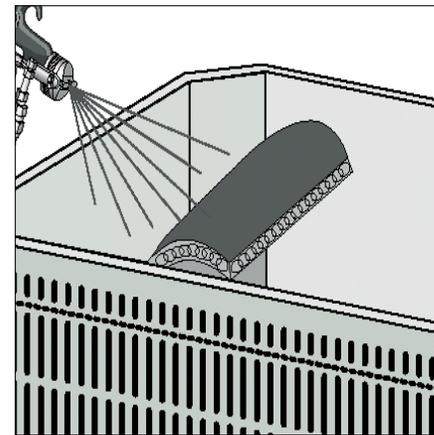
Super 77

## 3M™ Fastbond™ Insulation Adhesive 49



Long-time member of 3M’s portfolio of Go To, everyday-use adhesives. Fast-drying adhesive that bonds a range fabrics and insulation materials to a range of substrates. Our permanent bond provides fast results to keep projects moving ahead. This adhesive’s formula is easy to dispense and apply directly onto surfaces and materials where needed, with no soak-in or yellowing over time.

- ▶ Formulated for HVAC fibreglass insulation and more
- ▶ Offers a fast, aggressive tack for a quick, one-surface bond
- ▶ Permits immediate repositioning while providing long-lasting strength
- ▶ GREENGUARD™ and UL certified



Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Colour (Dry)	Solids Content by Weight	Viscosity (cP)	pH	Flash Point	Flammability (Wet)	Flammability (Dry)	Overlap Shear Strength (N/mm)*				180° Peel Adhesion (kg/cm)*			
							Cold Rolled Steel	2024 T3 Aluminium	Clad Aluminium	Stainless Steel	Cold Rolled Steel	2024 T3 Aluminium	Clad Aluminium	Stainless Steel
Clear	53–57%	450–650	4.1–4.5	None	Non-flammable	Combustible	9.9	8.9	9.1	9.1	3.46	2.66	3.24	3.67

\*Dwell/Cure Time: 48 hr @ room temperature.



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Adhesive 49

# Thin Gauge Metals

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## 3M™ Fastbond™ Contact Adhesive 30-NF

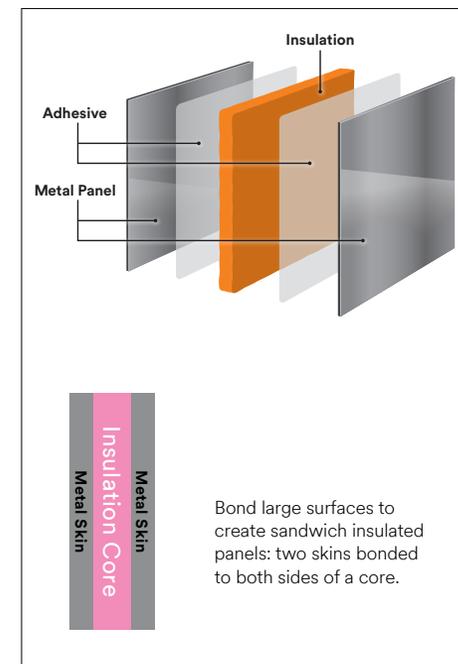


A water-dispersed, sprayable contact adhesive for long bonding range.

- ▶ Non-flammable in the wet state
- ▶ Post-formable and heat resistant
- ▶ Bonds most foamed plastics, plastic laminate, wood, plywood, and canvas to themselves and to each other
- ▶ Tested and approved for use by the Woodwork Institute of California under the provisions of ANSI/HPMA HP 1983 for Type II adhesive and the heat resistance test set forth in its Manual of Millwork
- ▶ Recognised under the Component Program Underwriter’s Laboratories, Inc. Component Recognition Program Guide GSRJ2, File R14485, Door Construction Materials. For use with swinging type fire doors of the hollow metal and steel composite types rated up to and including 3 hours
- ▶ GREENGUARD™ and UL certified

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Colour	Solids Content by Weight (%)	Flash Point	Coverage m <sup>2</sup> /lt	Viscosity cP	Base
Green when wet. Darker green when dry. Neutral, White (Wet), Clear (Dry)	47–51	None	16.6	200–750	Polychloroprene



EMEA Product Catalogue



Fastbond 30-NF

Alternative options

3M™ Holdfast 70 Spray Adhesive

3M™ Polystyrene Insulation 78 Spray Adhesive

3M™ Fast Tack Water Based Adhesive 1000NF

3M™ Sprayable Hot Melt Adhesive 6111 HT

## 3M™ Polystyrene Insulation 78 Spray Adhesive

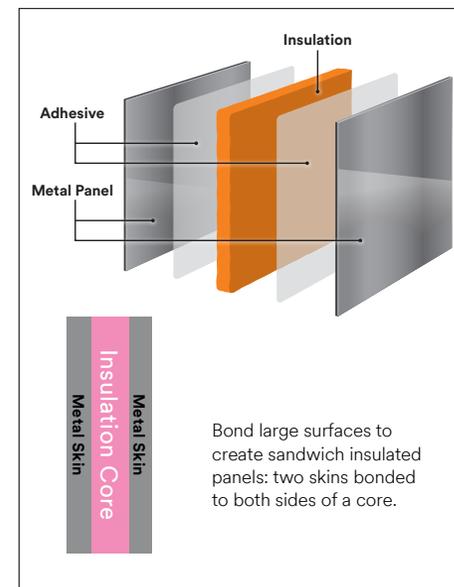


High strength, industrial grade spray adhesive. It is effective for bonding most types of insulation such as fibreglass and expanded polystyrene foam (EPS) onto numerous kinds of materials.

- ▶ Designed specifically for bonding expanding polystyrene foams (EPS)
- ▶ Forms a bond stronger than the polystyrene foam
- ▶ Will not dissolve or degrade polystyrene
- ▶ Sprays with a lace pattern optimised for foam bonding
- ▶ Provides professional, industrial strength adhesive for demanding applications
- ▶ Allows for a bond time of one to 30 minutes

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Colour	Density g/cm <sup>3</sup>	Solids Content by Weight (%)	VOC g/L	Coverage m <sup>2</sup>	Spray Pattern	Dry Time sec (min)	Shear Adhesion Failure Test (SAFT) °C
Translucent	6.78	35	508	5.85	Variable Lace	30–60 (1–2)	88



EMEA Product Catalogue



Insulation 78 Spray Adhesive

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Disclaimer

## 3M™ Dual-Lock™ Reclosable Fastener SJ3550



Hidden fasteners designed for use in a variety of attachment solutions. Black, interlocking mushroom-shaped heads provide strong, reliable and durable fastening that can be opened and closed multiple times.

- ▶ Acrylic, conformable foam tape bonds well to a variety of substrates including metals and plastics such as acrylics, polycarbonate and ABS
- ▶ Fasteners engage in any direction or position for easy alignment
- ▶ Can engage/fasten with an audible snap and detectable movement assuring complete and secure closure
- ▶ Can be opened and closed for multiple closure applications (high cycle life)
- ▶ Blind attachment — fasteners can be attached on the backside of substrate
- ▶ Can be used to attach components before they enter the final assembly plant
- ▶ 250 stem density per square inch



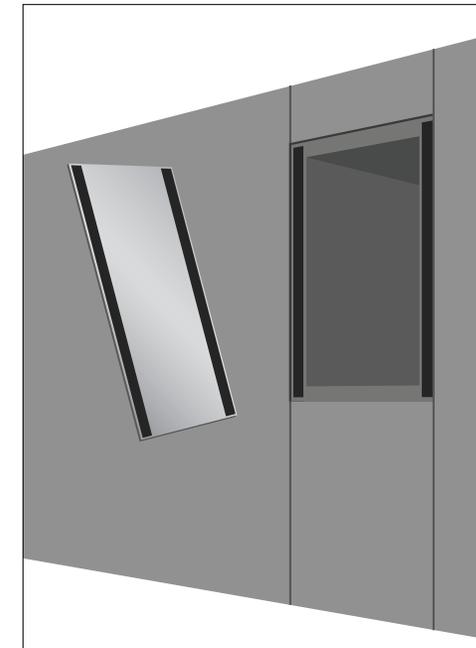
Opened



Engaged

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Colour	Adhesive Colour	Thickness mil (mm)	Engaged to itself or to one of the same family mil (mm)	Stems/in <sup>2</sup> (Stems/cm <sup>2</sup> )	Liner Material	Liner Thickness mil (mm)	Liner Colour
Black	White	138 (3.51)	226 (5.74)	250 (39)	Silicone treated Polyolefin with Red printing	4 (0.1)	Clear



EMEA Product Catalogue

Alternative options

**3M™ VHB™ Tape 4941/4941F**  
 (for permanent panel)

**3M™ Scotch-Weld™ Metal Bonder Acrylic Adhesive DP8407NS**  
 (for permanent panel)

**3M™ Polyurethane Adhesive Sealant 560**  
 (for permanent panel)

## 3M™ Adhesive Transfer Tape 467MP/468MP



A popular choice for graphic attachment and general industrial joining applications. It provides outstanding adhesion to metal and high surface energy plastics. This adhesive provides some initial repositionability for placement accuracy when bonding to plastics. It also performs well after exposure to humidity and hot/cold cycles.

- ▶ Up to 400°F short-term heat resistance
- ▶ Excellent solvent resistance
- ▶ Excellent shear strength to resist slippage and edge lifting
- ▶ Provides very high resistance to solvents and humidity
- ▶ High strength bond for splicing and laminating applications
- ▶ Thicker adhesives improve wet-out and adhesion on textured surfaces
- ▶ Excellent for rotary processing of graphics and die-cut parts



Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Product	Adhesive Thickness mil (mm)	Adhesive Type	Liner Material	Liner Thickness mil (mm)	Colour
467MP	2 (0.05)	3M™ High Performance Acrylic Adhesive 200MP	58# Polycoated Kraft Paper (PCK)	4.2 (0.11)	Clear with Tan Liner
468MP	5 (0.13)				



EMEA Product Catalogue



Double Sided Tapes for Assembly and Manufacturing



Double Coated and Transfer Tapes

## 3M™ Adhesive Transfer Tape 9485PC



A modified acrylic adhesive ideal for very high-bond strength to many surfaces. It has excellent chemical resistance and bold strength even at elevated temperatures. This tape is offered with a fibre reinforced adhesive which is important for roll stability in narrow widths. This adhesive is a good choice for applications which require adhesion to low surface energy plastics, powder coatings and oily metals.

- ▶ Excellent bond to metal and high surface energy plastics. Outstanding temperature and chemical resistance
- ▶ Two adhesive thicknesses: 2 mil for thin profile labels and 5 mil for rougher surfaces
- ▶ Available on various liners for specialised processing:
  - 55# Densified Kraft for rotary die-cutting
  - 62# Polycoated Kraft for steel rule die-cutting
  - 83# Polycoated Kraft for lay flat applications
  - 78# Extensible Kraft for conformable applications



Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Adhesive Thickness mil (mm)	Liner Material	Liner Thickness mil (mm)	Peel Adhesion oz/in (N/cm)	Lower Service Temperature Limit °F (°C)	Short Term Temperature Tolerance °F (°C)
ASTM			D3330*		
5 (0.127)	62# Polycoated Kraft	4.2 (0.11)	150 (16.4)	-40 °C -40 °F	500 (260)

\*Peel adhesion to stainless steel



EMEA Product Catalogue



Double Sided Tapes for Assembly and Manufacturing



Double Coated and Transfer Tapes

## 3M™ Adhesive Transfer Tape 9472LE



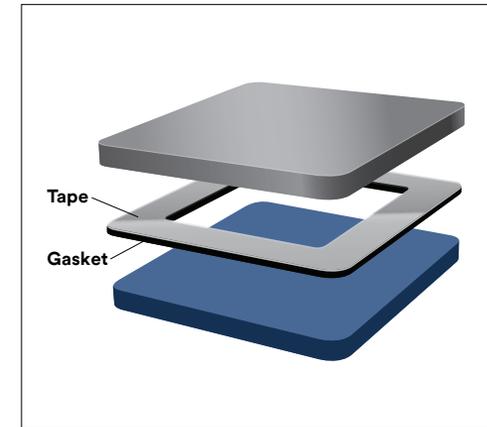
This tape has a long and proven history of reliably bonding a wide variety of similar and dissimilar materials such as metals, most plastics, glass, papers and painted surfaces. Ideal for applications requiring premium performance and a thicker profile than 2 mil tapes.

- ▶ Excellent bond to low surface energy substrates including powder coatings and plastics such as polypropylene (PP)
- ▶ High adhesion to metals and high surface energy materials, making it suitable for bonding dissimilar substrates
- ▶ Adhesive provides excellent holding power and anti-lifting properties
- ▶ Good resistance to industrial chemicals, consumer chemicals, moisture and humidity
- ▶ Ideal solution for general purpose attachment and assemblies of a wide variety of materials
- ▶ Meets a wide variety of automotive and OEM specifications

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Adhesive Type	Adhesive Thickness mil (mm)	Liner Material	Liner Thickness mil (mm)	Peel Adhesion oz/in (N/cm)
ASTM				D3330-F*
High strength acrylic adhesive 300LSE	5.2 (0.132)	58# Polycoated Kraft	4.2 (0.107)	140 (15.3)

\*Peel adhesion to stainless steel for 72 hours @ room temperature



EMEA Product Catalogue



Double Sided Tapes for Assembly and Manufacturing



Double Coated and Transfer Tapes

## 3M™ Adhesive Transfer Tape 950



Used as a general purpose transfer tape for a variety of high tack, thin applications. Ideal for a wide variety of similar and dissimilar materials where an aggressive adhesive with high initial adhesion is desired. Splicing of film, foils, fabrics. Laminating foams, photos, fabrics, metal or plastic nameplates.

- ▶ Very high initial adhesion with good holding power
- ▶ Available in several thicknesses and liner configurations for a wide variety of surface bonding and excellent process flexibility
- ▶ Good UV resistance
- ▶ Good chemical resistance
- ▶ Ideal for high surface energy (HSE) and low surface energy (LSE) materials
- ▶ UL approved. Meets US government specification MIL-P-19834B, Amendment 1



Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Adhesive Type	Adhesive Thickness mil (mm)	Liner Material	Liner Thickness mil (mm)	Peel Adhesion oz/in (N/cm)
ASTM				D3330*
High strength acrylic adhesive 300	5 (0.13)	60# Densified Kraft	3.5 (0.09)	86 (9.4)

\*Peel adhesion to stainless steel for 72 hours @ room temperature



EMEA Product Catalogue



Double Sided Tapes for Assembly and Manufacturing



Double Coated and Transfer Tapes

## Scotch® ATG Adhesive Transfer Tape 926



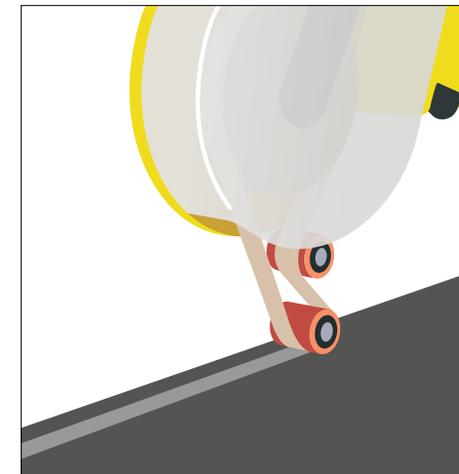
This tape is used to replace staples, liquid adhesives and glue guns. Our high performance acrylic adhesive sticks on contact to a wide variety of substrates and material combinations — even on challenging surfaces such as low surface energy materials, powder coatings or slightly oily metals. This product produces high tack levels for immediate adhesion and offers excellent chemical resistance and hold strength even at elevated temperatures.

- ▶ Bonds on contact to a variety of metals, plastics and papers
- ▶ Excellent bond strength with high shear strength and high temperature performance up to 450°F
- ▶ Chemical, solvent, humidity and moisture resistant
- ▶ Tape is reverse wound on 1 in. diameter cores for use in Scotch® ATG dispensers
- ▶ There is no mess and no cleanup

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Colour	Total Tape Thickness without liner mil (mm)	Adhesive	Release Liner	Liner Thickness mil (mm)	90° Peel Adhesion oz/in (N/cm)	Solvent Resistance	UV Resistance
ASTM					D3330***		
Clear	5 (0.13)	350*	Tan Paper**	4 (0.10)	120 (13.1)	Very Good	Good

\*DK = densified kraft \*\*DK with Red Plaid Leader \*\*\*Stainless Steel



With Scotch® ATG Applicators, a touch of the finger triggers a quick, controlled application of Scotch® ATG Transfer Tape at the same time as the liner rewinds into the applicator.



EMEA Product Catalogue



ATG Power to Bond Brochure



ATG 700 System

## Scotch® ATG Adhesive Transfer Tape 969



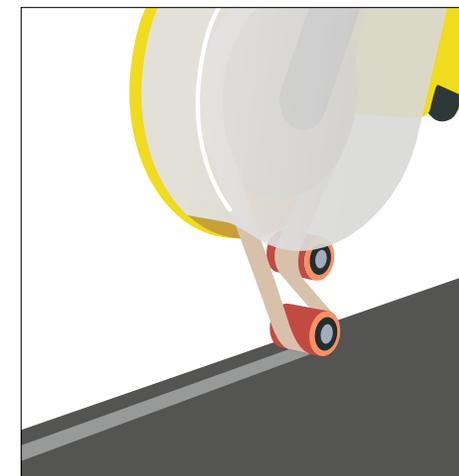
This tape bonds a wide variety of materials including plastics, glass, paints and materials with glossy surfaces. Very high initial adhesion creates an immediate, permanent bond that provides good solvent and UV resistance. The adhesive can stick to difficult, varied and textured surfaces, including areas with high humidity and exposed to sunlight.

- ▶ Provides very high adhesion and good shear holding power
- ▶ Holds well to glossy surfaces and most plastics
- ▶ Conforms easily to curves and contours
- ▶ Bonds well to smooth and moderately textured surfaces
- ▶ Leaves no mess, no residue and no odour
- ▶ Tape is reverse wound on 1 in. diameter cores for use in Scotch® ATG dispensers

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Colour	Total Tape Thickness without liner mil (mm)	Adhesive	Release Liner	Liner Thickness mil (mm)	90° Peel Adhesion oz/in (N/cm)	Solvent Resistance
ASTM					D3330***	
Clear	5 (0.13)	350*	Tan Paper**	5 (0.13)	85 (9.3)	Medium

\*DK = densified kraft \*\*DK with Red Plaid Leader \*\*\*Stainless Steel



With Scotch® ATG Applicators, a touch of the finger triggers a quick, controlled application of Scotch® ATG Transfer Tape at the same time as the liner rewinds into the applicator.



EMEA Product Catalogue



ATG Power to Bond Brochure



ATG 700 System

## 3M™ Double Coated Tape 9832



A general purpose tape that provides excellent adhesion to a wide variety of substrates, including many foams, plastics, foil, and felt. A thin polyester film carrier provides dimensional stability and improved handling. Can be used in the woodworking market on particle board, melamine, HPL, wood, plywood, vinyl, foam and more.

- ▶ Ideal for applications requiring high adhesion to a wide variety of materials, including many plastics and foams
- ▶ Has a film carrier, which can add dimensional stability to foams and other substrates
- ▶ The carrier also provides easier handling during slitting and diecutting



Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Total Tape Thickness without liner mil (mm)	Faceside Adhesive Thickness mil (mm)	Backside Adhesive Thickness mil (mm)	Carrier Thickness mil (mm)	Liner Material	Liner Thickness mil (mm)	Liner Colour
4.8 (0.12)	2.3 (0.058)	2 (0.051)	.5 (0.013)	58# Polycoated Kraft	4 (.1)	Tan



EMEA Product Catalogue

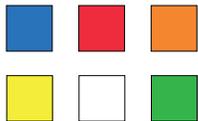


Double Sided Tapes for Assembly and Manufacturing



Double Coated and Transfer Tapes

## 3M™ Ultra Durable Floor Marking Tape 971



3M™ Ultra Durable Floor Marking Tape 971 is comprised of a Polylactic Acid (PLA) backing with a rubber adhesive. The tough, thick PLA backing resists pallet drag and high forklift traffic. This tape is designed for long-term floor marking, yet can still come up clean, in one piece, after several years on the floor.

- ▶ Available in a wide variety of vivid colours for diverse applications
- ▶ Designed to withstand heavy traffic areas as well as scuffing from pallets and heavy equipment
- ▶ Unique adhesive provides a strong bond to most floor surfaces, yet provides clean one-piece removal from many surfaces
- ▶ Pigmented backings maintain vivid colour even when exposed to heavy abrasion from pallets or heavy equipment like forklifts
- ▶ Easy release liner for quick application
- ▶ Ideal for 5S lean manufacturing initiatives
- ▶ Bright colours for high visibility
- ▶ Unique adhesive provides a strong bond yet promotes one-piece clean removal

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Adhesive Type	Total Thickness mm	Tensile Strength N/cm	Peel Adhesion N/cm	Elongation (%)	Standard Roll Length m	Colour
ASTM		D-3652	D-3759	D-3330*	D-3759		
Poly Lactic Acid (PLA)	Rubber	0.85	52.4	5.4	4	33	Yellow, white, red, green, blue, orange

\*Peel adhesion to stainless steel



EMEA Product Catalogue



Product Flyer: Tape 971



971 Demo

## 3M™ Vinyl Tape 764, 766, 767



3M™ General Purpose Vinyl Tape 764, 766 and 767 are an economical vinyl tape option for colour coding, bundling and safety marking applications. We've designed this tape to resist wear, weathering and light abrasion while providing good instant adhesion to many surfaces. It is available in an array of distinctive colours, as well as transparent.

- ▶ Maintains vivid colour even when exposed to abrasion and solvents
- ▶ Available in a wide variety of colours for diverse applications
- ▶ Conformable backing makes vinyl tape ideal for use on curved and irregular surfaces
- ▶ Rubber adhesive provides good instant adhesion on many surfaces
- ▶ Can be applied by hand or with a floor applicator
- ▶ Ideal for marking applications in light traffic areas

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Adhesive Type	Total Thickness mm	Tensile Strength N/cm	Peel Adhesion N/cm	Elongation (%)	Temperature Use Range °C	Standard Roll Length m	Colour
ASTM		D-3652	D-3759	D-3330*	D-3759			
Polyvinyl Chloride	Rubber	0.125	22.8	2.1	180	16 to 29	33	Grey, Orange, Blue, Transparent, Black, Red, Yellow, White, Green, Brown, Red/White, Yellow/Black

\*Peel adhesion to stainless steel



EMEA Product Catalogue



Product Flyer: Tape 764/766/767



764 Demo

## 3M™ Safety Stripe Tape 5702



Developed to provide clear safety indication for driving and walking lanes, hazardous areas, protruding equipment and low hanging objects, our durable 3M™ Safety Stripe Tape 5702 is an ideal choice for your applications. The colour is embedded into the vinyl backing to resist abrasion, scuffing and moisture which might affect visibility.

- ▶ Colour is embedded into the tape construction to provide long-term, high visibility and abrasion resistance
- ▶ One-piece, clean removal from many surfaces which helps reduce clean-up and labour costs
- ▶ Unique stretch properties enable tape to remain stretched to conform to uneven surfaces without lifting and retracting
- ▶ Rubber adhesive provides excellent holding strength on many surfaces
- ▶ Good solvent resistance for long service life
- ▶ Quick application of tape eliminates prep work and clean-up processes associated with painting

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Backing Material	Adhesive Type	Total Thickness mm	Tensile Strength N/cm	Peel Adhesion N/cm	Elongation (%)	Temperature Use Range °C	Standard Roll Length m	Colour
ASTM		D-3652	D-3759	D-3330*	D-3759			
Vinyl	Rubber	0.14	26	2.1	170	4 to 77	33	Yellow/Black

\*Peel adhesion to stainless steel



EMEA Product Catalogue

## Resources for Download

Secure and Protect	Chemical Process and Coating	Liquid Paint Masking	Panel-to-Frame	Stiffener-to-Panel	Insulation	Decorative Metal Attachment	Sealing and Gasketing	View Port Window	Floor and Safety Marking
Literature	Literature	Literature	Literature	Literature	Literature	Literature	Literature	Literature	Literature
<ul style="list-style-type: none"> <li>▶ EMEA Product Catalogue</li> <li>▶ App Profile: Bundling</li> <li>▶ App Profile: Coil Tapping</li> <li>▶ App Profile: Edge Protection</li> <li>▶ App Profile: Splicing</li> <li>▶ App Profile: Roll Starting</li> <li>▶ Product Flyer: Film 7070UV</li> <li>▶ Tapes for Metal Processing</li> </ul>	<ul style="list-style-type: none"> <li>▶ EMEA Product Catalogue</li> <li>▶ 3M™ Metal Foil Tapes</li> <li>▶ Product Flyer: Speciality Six: Tape 471</li> <li>▶ Product Flyer: Tape 8992</li> <li>▶ Tapes for Metal Processing</li> <li>▶ Product Flyer: 425</li> <li>▶ Product Flyer: 363</li> </ul>	<ul style="list-style-type: none"> <li>▶ EMEA Product Catalogue</li> <li>▶ Product Flyer: 201E Masking Tape</li> <li>▶ Product Flyer: 301E Masking Tape</li> <li>▶ Product Flyer: 401E Masking Tape</li> <li>▶ Product Flyer: 501E Masking Tape</li> <li>▶ Tapes for Metal Processing</li> <li>▶ Product Flyer: 471+</li> </ul>	<ul style="list-style-type: none"> <li>▶ EMEA Product Catalogue</li> <li>▶ 3M™ VHB™ Tape Design Guide</li> <li>▶ Acrylic Adhesives</li> <li>▶ Brochure: Smooth Sided Trailer</li> <li>▶ Powder Coating</li> <li>▶ Tech Bulletin: 3M™ VHB™ Tape Panel Bonding</li> <li>▶ White Paper: Combo Build</li> </ul>	<ul style="list-style-type: none"> <li>▶ EMEA Product Catalogue</li> <li>▶ 3M™ VHB™ Tape Design Guide</li> <li>▶ Acrylic Adhesives</li> <li>▶ Bonding Composite Parts</li> <li>▶ Powder Coating</li> <li>▶ Product Flyer: GPH</li> <li>▶ Tech Bulletin: 3M™ VHB™ Tape Panel Bonding</li> <li>▶ White Paper: Combo Build</li> <li>▶ White Paper: Joining and Bonding of Composite Parts</li> </ul>	<ul style="list-style-type: none"> <li>▶ EMEA Product Catalogue</li> </ul>	<ul style="list-style-type: none"> <li>▶ EMEA Product Catalogue</li> <li>▶ 3M™ VHB™ Tape Design Guide</li> <li>▶ Brochure: ATG Power to Bond</li> <li>▶ Double Sided Tapes for Assembly and Manufacturing</li> </ul>	<ul style="list-style-type: none"> <li>▶ EMEA Product Catalogue</li> <li>▶ 3M Adhesive Sealants</li> <li>▶ 3M™ VHB™ Tape Design Guide</li> <li>▶ Brochure: ATG Power to Bond</li> <li>▶ Phone Script: Extreme Sealing Tape</li> <li>▶ Product Flyer: Extreme Sealing Tape</li> </ul>	<ul style="list-style-type: none"> <li>▶ EMEA Product Catalogue</li> <li>▶ 3M Adhesive Sealants</li> <li>▶ 3M™ VHB™ Tape Design Guide</li> <li>▶ Tech Bulletin: 3M™ VHB™ Tape Panel Bonding</li> <li>▶ 3M™ Polyurethane Glass Adhesive Sealant 590</li> </ul>	<ul style="list-style-type: none"> <li>▶ 3M™ Industrial Tapes for Marking</li> <li>▶ Product Flyer: 971</li> <li>▶ Product Flyer: 471</li> <li>▶ Product Flyer: 764</li> </ul>

## Resources for Download

Secure and Protect	Chemical Process and Coating	Liquid Paint Masking	Panel-to-Frame	Stiffener-to-Panel	Insulation	Decorative Metal Attachment	Sealing and Gasketing	View Port Window	Floor and Safety Marking
<b>Video</b>	<b>Video</b>	<b>Video</b>	<b>Video</b>	<b>Video</b>	<b>Web</b>	<b>Video</b>	<b>Video</b>	<b>Video</b>	<b>Video</b>
<ul style="list-style-type: none"><li>Installation: Film 7070UV</li></ul>		<ul style="list-style-type: none"><li>471+ Demo</li><li>Paint Masking with 3M Masking Tape</li></ul>	<ul style="list-style-type: none"><li>Animation: H-Vac</li><li>Combo Build</li><li>Impact Strength of Acrylic Adhesives</li><li>Metal Bonder</li><li>Panel-to-Frame</li><li>Testimonial: Showhauler</li><li>Testimonial: Innovent</li><li>Testimonial: WS Steel</li><li>Testimonial: H&amp;H</li></ul>	<ul style="list-style-type: none"><li>Animation: H-Vac</li><li>Animation: LSB Bus</li><li>Impact Strength of Acrylic Adhesives</li><li>Metal Bonder</li><li>Multi-Material Composite Adhesives</li><li>Testimonial: H&amp;H</li><li>Testimonial: WS Steel</li></ul>	<ul style="list-style-type: none"><li>Fastbond 30-NF</li><li>Holdfast 70</li><li>Insulation Adhesive 49</li><li>Insulation 78 Spray Adhesive</li><li>Super 77™</li><li>3M™ Fast Tack Water Based Adhesive 1000NF</li><li>3M™ Sprayable Hot Melt Adhesive 6111 HT</li></ul>	<ul style="list-style-type: none"><li>ATG 700 System</li><li>Double Coated and Transfer Tapes</li><li>Testimonial: WS Steel</li></ul>		<ul style="list-style-type: none"><li>Combo Build</li><li>3M™ Polyurethane Glass Adhesive Sealant 590</li></ul>	<ul style="list-style-type: none"><li>3M™ Floor and Safety Marking</li><li>971 Demo</li><li>471 Demo</li><li>764 Demo</li></ul>

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