



Technical Data Sheet

3M™ Neoprene High Performance Contact Adhesive 1357

Product Description

3M™ Neoprene High Performance Contact Adhesive 1357 can be used to bond most rubber, cloth, metal, wood, foamed glass, paper honeycomb, decorative plastic laminates and many other substrates.

Product Features

- Long bonding range.
- Excellent initial strength.
- High heat resistance.

Technical Information Note

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

Typical Uncured Physical Properties

Attribute Name	Value
Net Weight	0.8 — 0.84 kg/L
Base	Polychloroprene

Typical Physical Properties

Attribute Name	Temperature	Value
Color		Gray/Green, Light Yellow
Solids Content by Weight		23 — 27 %
Solvent Resistance		Petroleum distillate, acetone, MEK, toluene, n-hexane
Coverage		7.6 m ² /L ¹
Flash Point		-26 °C ²
Viscosity	27 °C	200 — 450 cP ³

¹ @ 27 g/m² (2.5 g/ft²) dry

² TCC

³ Brookfield Viscometer RVF #2 spindle @ 20 rpm

Typical Performance Characteristics

180° Peel Adhesion

Substrate: Canvas to Steel

Dwell Time	Temperature	Value
24 h	23 °C	28 N/cm
72 h	23 °C	54 N/cm
120 h	23 °C	74 N/cm
168 h	23 °C	46 N/cm
2 week	23 °C	42 N/cm
3 week	23 °C	40 N/cm

Dwell Time	Temperature	Value
3 week	-34 °C	23 N/cm
3 week	66 °C	32 N/cm
3 week	82 °C	21 N/cm

Overlap Shear Strength

Substrate: Birch to Birch

Temperature: 23 °C

Dwell Time	Test Condition	Value
2 week		3.1 MPa ¹
3 week		3.7 MPa ¹
3 week	-34 °C (-30 °F)	6.6 MPa ¹
3 week	82°C (180 °F)	1.4 MPa ¹
3 week	107 °C (225 °F)	1.1 MPa ¹

¹ 3 mm (1/8 in) thick substrates

Handling/Application Information

Directions for Use

When bonding wood veneers, success is dependent on many variables such as environmental conditions, bonding process, type of base material, type of veneer, adhesive type and top coat finishing systems to name a few. It is the user's responsibility to thoroughly test any adhesive for its suitability in bonding wood veneers. It is also recommended to follow the veneer manufacturers recommendation and industry guidelines.

Directions For Use:

1. Surface Preparation: Remove all dust, dirt, oil, grease, wax, loose paint, etc.

Wiping with solvent such as Methyl Ethyl Ketone (MEK) will aid in preparing the surface for bonding.*

2. Application Temperature: For best results the temperature of the adhesive and surfaces to be bonded should be at least 65°F (18°C). If stored below 30°F (-1°C), warm-up to room temperature in a warm room only (do not exceed 120°F (49°C) followed by thorough agitation).

3. Application: Stir or agitate well before using for optimum results. Apply 2.5 gms to 3.5 gms/ft.2 dry weight to each surface. Unusually porous surfaces will require more adhesive.

4. Drying Time: The adhesive dries in about 10 minutes. High humidity will slow drying-high temperatures speed the drying. This adhesive has a bonding range of approximately 30 minutes when applied to both bond surfaces under conditions of 70°F (21°C) and 35% R.H. If the adhesive becomes too dry, apply another thin coat of adhesive to one surface, allow to become slightly tacky, and bond.

Relative humidity above 50% can cause blushing (condensation of moisture on surface) and a false bond. To avoid this, we recommend a force drying temperature of 180-220°F (82-104°C). Force drying will also help remove the solvent more rapidly.

5. Assembly: Spacers, such as dowels or strips of laminate, may be used to help prevent premature adhesive/adhesive contact and bonding prior to positioning. Slide out of the spacers and apply uniform pressure, working toward the edges. A 3 in roller used with maximum body pressure should be used to help ensure adequate contact and bonding, especially on edges. The use of a pinch roll is preferred for optimum performance. Bonded assemblies may be machined, trimmed, etc. immediately after bonding.

6. Cleanup: Adhesive residue of 3M™ Neoprene High Performance Contact Adhesive 1357 and 1357-L may be removed from exposed surfaces with solvents such as Methyl Ethyl Ketone (MEK), or 3M™ Citrus Base Industrial Cleaner.* For flushing fluid lines use MEK.

*When using solvents, extinguish all ignition sources, including pilot lights, and follow the manufacturer's precautions and directions for use.

Application Techniques

Spray, brush, roll or flow

Application Equipment

Appropriate application equipment can enhance adhesive performance. We suggest the following application equipment for the user's evaluation in light of the user's particular purpose and method of application.

1. Pumping: A 2:1 divorced design pump is suggested. All material hoses should be nylon or PVA lined. Packings and glands in contact with the adhesive should be PTFE.
2. Spray:

Spray Applicator	Air Cap	Fluid Tip	Air Pressure	Approximate Air Requirement*	Fluid Flow**
DeVilbiss JGA, MSA	777	FX (.042")	80 psi	18 1/2 CFM	6 fl. oz./min.
Binks No. 95 or 2001	63PH	63BSS (.046")	80 psi	23 CFM	6 fl. oz./min.

These adhesives are not recommended for Airless Spraying.

*5 H.P. Compressor for continuous use.

**To Measure Fluid Flow: Pressurize fluid source only; pull trigger, flow material into measuring device for 60 seconds, increase or decrease fluid source pressure to obtain desired fluid flow.

3. Brush/Roller: Typical brushes/rollers designed for oil-based paint may be used.

Industry Specifications

[NFPA 130 test report for details \(ASTM E162, ASTM E662, SMP 800-C, BSS 7239\)](#)

[NFPA 130 test report for details \(ASTM E1354\)](#)

Storage and Shelf Life

Store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original, unopened packaging, out of direct sunlight. Lower temperatures cause increased viscosity of a temporary nature. For best performance, use this product within 30 months from date of manufacture.

Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577

Automotive Disclaimer

Select Automotive Applications:

This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

Information

Precautionary Information: Refer to product label and Material Safety Data Sheet for health and safety information before using the product. For information, please contact your local 3M Office. You can click or scan QR code to see contact detail or visit www.3M.com Important Information: All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method or application. All questions of liability relating to this product are governed by the terms of the sale subject, where applicable, to the prevailing law. Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications. This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations.

ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

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