

**3M** Science.  
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3M Automotive Aftermarket

# 3M™ Impact Resistant Structural Adhesive

Applied to optimise shear,  
peel and impact performance

# 3M™ Impact Resistant Structural Adhesive

07333

Designed specifically to meet OEM requirements where impact strength matters most

The all new 3M Impact Resistant Structural Adhesive is a two-part epoxy adhesive which provides an extended work time, but can be rapidly cured with heat. 3M Impact Resistant Structural Adhesive has excellent adhesion to a wide variety of properly prepared automotive substrates including steel and aluminium.

This adhesive is intended for true structural bonding applications when specified by automotive OEMs, and is recommended for all weld-bonded and rivet-bonded joints when specified by an OEM.

The 3M Impact Resistant Structural Adhesive also has a unique feature indicating when the curing process has begun through colour change technology.



## Optimised for Shear, Peel and Impact Performance

This New 3M™ Impact Resistant Structural Adhesive is optimised to duplicate collision energy management pathways and energy absorption.



Applies easily to properly prepared substrates



Can be rivet-bonded or weld-bonded immediately after application



Adhesive bead starts silver in colour and changes to purple once curing is underway



Cured product is purple to indicate proper mixing and complete cure





Cure indicated by silver to purple colour change (30 min at 80°C)

- Higher impact strength versus traditional bonding adhesives
- Adheres to all properly prepared steel and aluminium substrates
- Can be weld-bonded or rivet-bonded immediately after application
- Excellent extreme temperature performance
- Can be cured with heat (30 min at 80°C)
- Dispenses silver, cures purple to indicate proper mixing and curing
- Corrosion inhibiting formula with lifetime corrosion protection

## Technical Data

The values shown below are for ambient air temperature and substrate temperature at 21°C.

Work Time	Fixture Time	Cure Time
60 min	8 hrs	24 hrs

### LAP Shear Strength (ISO 4587)<sup>1</sup>

Environment	Description	3M™ Impact Resistant Structural Adhesive
Room Temp. Cure	24 hours at 23°C	20MPa
Cold Exposure (C)	RT Cure / 4 hours at -40°C (Tested Cold)	25MPa
Hot Exposure (H)	RT Cure / 14 days at 80°C (Tested Hot)	10MPa
Hot Exposure (RT)	RT Cure / 14 days at 80°C (Tested after 24h RT)	21MPa
Humidity Exposure	RT Cure / 240 hours at 38°C & 95% RH (Tested after 24h RT)	20MPa
Neutral Salt Spray	RT Cure / 480 hours NSS exposure (Tested after 24h RT)	18MPa
Corrosion Cycle	RT Cure / Cyclic Corrosion Exposure (Tested after 24h RT)	20MPa
Water Soak (W)	RT Cure / 168 hours water storage at 55°C (Tested wet)	19MPa
Water Soak (D)	RT Cure / 168 hours water storage at 55°C (Tested after 24h RT)	19MPa

### T-Peel Strength (ASTM D1876)<sup>2</sup>

Environment	Description	3M™ Impact Resistant Structural Adhesive
Room Temp. Cure	24 hours at 23°C	8.6N/mm
Corrosion Cycle	RT Cure / Cyclic Corrosion Exposure (Tested after 24h RT)	7.6N/mm

### Wedge Impact Peel (ISO 11343)<sup>3</sup>

Environment	Description	3M™ Impact Resistant Structural Adhesive
Room Temp. Cure	24 hours at 23°C	9.6(J)
Hot Exposure	RT Cure / 4 hours at 80°C (Tested Hot)	6.5(J)
Cold Exposure	RT Cure / 4 hours at -20°C (Tested Cold)	6.1(J)

**NOTE:** The above technical information and data, while representative of current performance, should not be used for specification release.

<sup>1</sup>CRS 1018, 0.85mm; Adhesive thickness 0.25mm; Bonded area 12.7mm x 25.4mm.

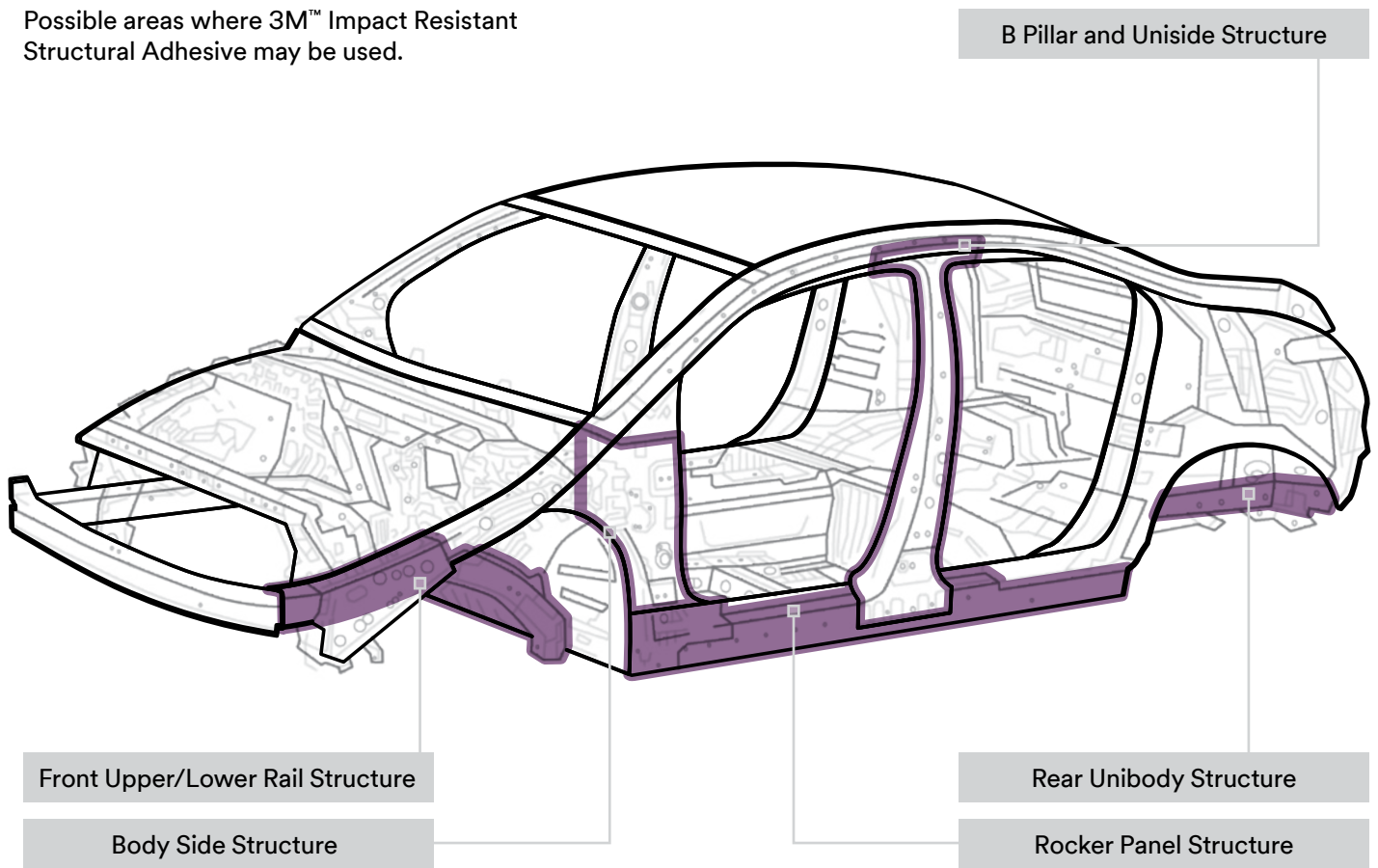
<sup>2</sup>CRS 1018, 0.85mm; Adhesive thickness 0.25mm; Bonded area 75mm x 25.4mm.

<sup>3</sup>E60 EZG 60G, 0.78mm; Adhesive thickness 0.25mm; Bonded area 30mm x 20mm.

Please reference OEM Repair Materials as additional resources.

# Quick Reference

Possible areas where 3M™ Impact Resistant Structural Adhesive may be used.



Please reference OEM Repair Materials as additional resources.

## Ordering Information

### 3M Impact Resistant Structural Adhesive

Part No.	Size	Product	Case Quantity
07333	200ml	3M™ Impact Resistant Structural Adhesive	3 Cartridges

### Accessories

Part No.	Size	Product
08193	N/A	3M™ Static Mixing Nozzle 9.5mm in nozzle for all 200mL and 400mL products
08117	200ml	3M™ Performance Manual Applicator Manual — For 200mL product
08571	200ml	3M™ Standard Manual Applicator Economy Line Applicator with heavy duty construction

**Product Use:** Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application. For health and safety information please refer to product labels and Safety Data Sheets.



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