Glasscorp LIMITED

TECHNICAL DATA SHEET

Rear Vision Mirror Glue/Adhesive System

30/06/2023

DESCRIPTION

AT058B Adhesive is a tough acrylic adhesive designed primarily for mounting rear view mirrors to automobile windshields. This adhesive has also found wide acceptance in a variety of structural bonding applications due to its versatile performance capabilities. AT058B Adhesive has demonstrated the ability to provide high tensile strength while maintaining excellent product flexibility. This results in tough, durable bonds with outstanding impact and peel resistance. This tough acrylic, is a two component, room temperature curing adhesive.

FEATURES AND BENEFITS

- High impact and shock resistance
- Temperature resistance: -40°C to 149°C
- Good gap filling properties
- Excellent adhesion to a variety of surfaces
- Excellent UV resistance
- Consistent bond strength
- Fast fixturing
- No pot life, no mixing
- No waste problems
- Low toxicity
- Low odour
- Thixotropic: facilitates dispensing/applying
- Non-migrating on vertical surfaces
- Increases productivity
- Requires minimal parts cleaning
- Easy clean-up
- Requires minimal clamping time and tooling
- Eliminates high energy cost needed for heat cured materials
- Eliminates need for mechanical clips

PRODUCT INFORMATION

AT058B	Kit (15ml Adhesive and 15ml Primer)

TYPICAL PROPERTIES – UNCURED

Base Resin	Modified Acrylic
Solids	100% - No Solvents
Appearance	Off-White, Translucent
Specific Gravity @ 25°C	1.07
Viscosity @ 25°C, cP	60,000
Flash Point	See Safety Data Sheet

TYPICAL CURING PERFORMANCE

AT058B Adhesive is designed to be used with AT058B Primer and cured at room temperature. Cure characteristics are measured by determining fixture time (handling time) and speed of cure.

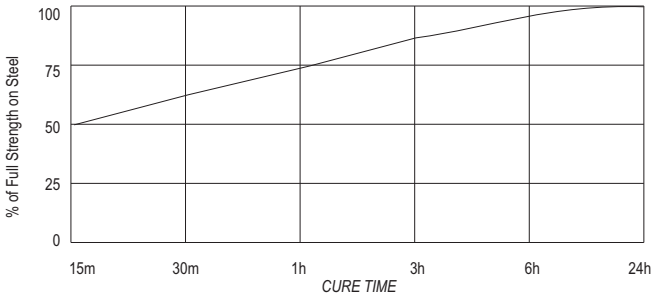
Fixture Time

Fixture time is defined as the time to develop a shear strength of 0.1 N/mm². Tested on steel lap-shear specimens, 1 side primed with AT058B Primer and tested according to ISO 4587.

Gap	Fixture Time
0 .00mm	≤ 25 seconds
0.25mm	≤ 330 seconds

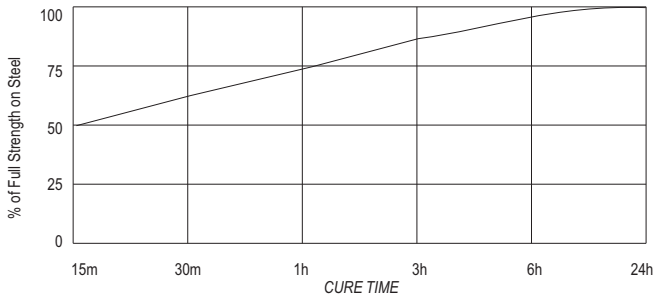
Cure Speed

The graph below shows shear strength developed with time using AT058B Primer on steel lap-shear specimens and tested according to ISO 4587.



Cure Speed vs. Temperature

Heat can be used to effect or accelerate cure when surface priming operations are undesirable. Typical heat cure conditions consist of heating and maintaining bondline at a temperature shown in the graph below for the corresponding time specified. Optimum conditions for heat cure should be determined on the actual assemblies.



TYPICAL PROPERTIES – CURED

Method	Property	Value
ASTM D882	Tensile Strength	2,700 psi
ASTM D882	Modulus of Elasticity	21,000 psi
ASTM D882	Elongation	130%
ASTM D2240	Durometer Hardness	65 Shore D

TYPICAL CURED PERFORMANCE

Shear Strength

Tested on lap-shear specimens with 1 side primed with AT058B Primer and tested according to ISO 4587

Substrate	Gap	RT Cure	Shear Strength
Steel	0mm	24 hours	≥11.7 (2500) N/mm² (psi)
Steel	0mm	48 hours	20.7 (3000) N/mm² (psi)
Steel	0.25mm	48 hours	19.0 (2750) N/mm² (psi)
Steel	0.50mm	48 hours	17.4 (2520) N/mm² (psi)
Aluminium	0mm	48 hours	13.1 (1900) N/mm² (psi)
Zinc dichromate	0mm	48 hours	13.1 (1900) N/mm² (psi)

TYPICAL ENVIRONMENTAL RESISTANCE

Shear Strength, steel lap-shear specimens, 1 side primed with AT058B Primer cured for 48 hours at 22°C and tested according to ISO 4587

Heat Aging

Aged for 1000 hours at temperature indicated and tested at 22°C

Temperature	Shear Strength
93°C	15.7 (2280) N/mm² (psi)
121°C	10.8 (1560) N/mm² (psi)
150°C	4.1 (600) N/mm² (psi)

Humidity Resistance

Conditioned in 50°C condensing humidity for time indicated and tested at 22°C

Exposure Time	Shear Strength
1 week	15.7 (2280) N/mm² (psi)
2 weeks	11.2 (1620) N/mm² (psi)
4 weeks	4.1 (600) N/mm² (psi)

Chemical/Solvent Resistance

Aged 30 days at 87°C and tested at 22°C

Chemical/Solvent	Initial Strength
Air Reference	100%
Water Glycol 50/50	30%
Gasoline	10%
Motor Oil	100%

DIRECTIONS FOR USE

1. For best performance bond surfaces should be clean and free from grease and other contaminants.
2. To ensure a fast and reliable cure, AT058B Primer should be applied to one of the bond surfaces and the AT058B Adhesive to the other surface. Parts should be assembled within 10 minutes.
3. The recommended bondline gap is 0.1mm. Where bond gaps are large (up to a maximum of 0.5mm), or faster cure speed is required, AT058B Primer should be applied to both surfaces. Parts should be assembled immediately (within 1 minute).
4. Excess adhesive can be wiped away with organic solvent.
5. Bond should be held clamped until adhesive has fixtured usually less than 1 minute.
6. Allow 5 minutes before hanging rear-view-mirror.

APPLICATION

- Rear-View-Mirror bonding
- Bonding pre-coated sheet metal
- Bonding ferrites, plastic, and metal wear strips
- Bonding metals with special surface treatments such as galvanized, phosphate, and dichromate surfaces

LIMITATIONS

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Safety Data Sheet (SDS).

STORAGE AND SHELF LIFE

AT058B should be stored in a cool, dry location in unopened containers at a temperature between 8°C to 28°C unless otherwise labelled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused material, do not return any material to its original container.

FIRST AID / PRECAUTIONS IN USE

Complete details on each of the products mentioned are available on the product Safety Data Sheets. To ensure no harm is caused to persons using Glasscorp products, it is recommended that all concerned read the appropriate Safety Data Sheets. Visit www.glasscorp.co.nz for copies.

DISCLAIMER

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TECHNICAL ADVICE

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