PERMABOND® MS359 GREY

MS Polymer Adhesive

Technical Datasheet

Features & Benefits

- Free from solvents, isocyanates, silicones and PVC compounds, non-corrosive
- Cures at room temperature
- No mixing required
- Can be painted after curing
- Suitable for a variety of substrates
- Primer free
- Easy to apply
- Versatile – weather resistant

Description

PERMABOND® MS359 GREY is a single-part, moisture curing MS polymer adhesive. It is ideal for use on a wide variety of substrate materials including metals, plastics and composites. It is ideal for exterior construction applications (e.g. frames and fascias) as it has excellent resistance to weathering.

Physical Properties of Uncured Adhesive

Chemical composition	MS-Polymer
Appearance	Grey
Viscosity @ 25°C	5rpm: 1,500,000-2,500,000mPa.s *(cP)* 1rpm: 4,500,000-9,000,000mPa.s *(cP)*
Specific gravity	1.5

Typical Curing Properties

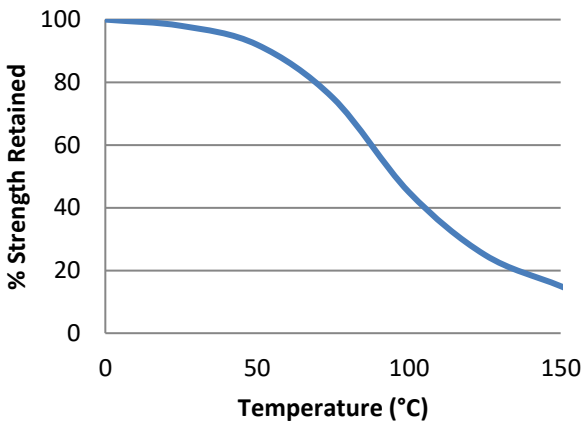
Curing mechanism	Humidity
Skin over time	10-20 minutes
Cure rate	Approx. 5mm / 24 hours

Typical Performance of Cured Adhesive

Shear strength (ISO4587)	Steel: 2-3 MPa *(290-440psi)* Aluminium: 2-3 MPa *(290-440psi)* Zinc: 2-3 MPa *(290-440psi)* PVC: 2-3 MPa *(290-440psi)* Polycarbonate: 1-1.5 MPa *(150-220psi)* Polystyrene: 1-1.5 MPa *(150-220psi)* Wood: 2-3 MPa *(290-440psi)*
Tensile strength (ISO37)	2-3 MPa *(290-440psi)*
Elongation at break (ISO37)	150-350%
Hardness (ISO868)	45-60 Shore A

**Strength results will vary depending on the level of surface preparation and gap.*

Hot Strength



"Hot strength" shear strength tests performed on mild steel. Fully cured then conditioned to pull temperature for 30 minutes before testing.

MS359 GREY can withstand higher temperatures for brief periods (such as for paint baking and wave soldering processes) providing the joint is not unduly stressed. The minimum temperature the cured adhesive can be exposed to is -40°C (-40°F) depending on the materials being bonded.

Additional Information

This product is not recommended for use in contact with strong oxidizing materials.
Information regarding the safe handling of this material may be obtained from the safety data sheet (SDS).
Users are reminded that all materials, whether innocuous or not, should be handled in accordance with the principles of good industrial hygiene.

This Technical Datasheet (TDS) offers guideline information and does not constitute a specification.

Surface Preparation

Surfaces should be clean, dry and grease-free before applying the adhesive. Use a suitable solvent (such as acetone or isopropanol) for the degreasing of surfaces. Some metals such as aluminium, copper and its alloys will benefit from light abrasion with emery cloth (or similar), to remove the oxide layer.

Directions for Use

1) Surfaces must be clean, dry and grease-free prior to bonding.
2) Use a caulking gun to dispense adhesive directly from cartridge.
3) If it is hard to extrude, warming the cartridge will reduce the viscosity and allow easier dispensing.
4) The adhesive can be spread with a spatula if required.

Video Links

Surface preparation:
https://youtu.be/8CMOMP7hXjU

MS Polymer directions for use:
https://youtu.be/mie4Oqq4wtM

Storage & Handling

Storage Temperature	5 to 25°C *(41 to 77°F)*

Other Products Available

Anaerobics

- Thread lockers
- Thread sealants
- Gasket makers
- Sealants / retainers

Cyanoacrylates

- Instant adhesives
- For rapid bonding of metals, plastics, rubber and many other materials

Epoxies

- Two-part room temperature cure adhesives
- Single-part heat cure adhesives
- Modified Technology (MT) flexible grades available

MS-Polymers

- Single-part, moisture-curing, flexible sealants

Polyurethanes

- Two-part room temperature curing adhesives

Toughened Acrylics

- Rapid curing, high strength structural adhesives

UV Light Cured Adhesives

- Glass / plastic bonding
  - Optically clear
  - Non-yellowing

FOR PROFESSIONAL OR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN

PERMABOND® MS359 CLEAR

MS Polymer Adhesive

Technical Datasheet

Features & Benefits

- Free from solvents, isocyanates, silicones and PVC compounds, non-corrosive
- Cures at room temperature
- No mixing required
- Crystal clear
- Can be painted after curing
- Suitable for a variety of substrates
- Primer free
- Easy to apply
- Versatile – weather resistant

Description

PERMABOND® MS359 CLEAR is a single-part, moisture curing MS polymer adhesive. It is ideal for use on a wide variety of substrate materials including metals, glass and composites. It is ideal for exterior construction applications as it has excellent resistance to weathering, is non-yellowing and produces a discreet, aesthetically pleasing bond.

Physical Properties of Uncured Adhesive

Chemical composition	MS-Polymer
Appearance	Clear, thixotropic paste
Viscosity @ 25°C	5rpm: 800,000-1,500,000 mPa.s *(cP)* 1rpm: 3,200,000-4,200,000 mPa.s *(cP)*
Specific gravity	1.1

Typical Curing Properties

Curing mechanism	Humidity
Skin over time	10-20 minutes
Cure rate	Approx. 4mm / 24 hours

Typical Performance of Cured Adhesive

Shear strength (ISO4587)	Steel: 2-3 MPa *(290-440psi)* Aluminium: 2-3 MPa *(290-440psi)* Zinc: 2-3 MPa *(290-440psi)* PVC: 2-3 MPa *(290-440psi)* Polycarbonate: 1-1.5 MPa *(150-220psi)* Polystyrene: 1-1.5 MPa *(150-220psi)* Wood: 2-3 MPa *(290-440psi)*
Tensile strength (ISO37)	0.7-1.5 MPa *(100-200psi)*
Elongation at break (ISO37)	80-100%
Hardness (ISO868)	40-50 Shore A

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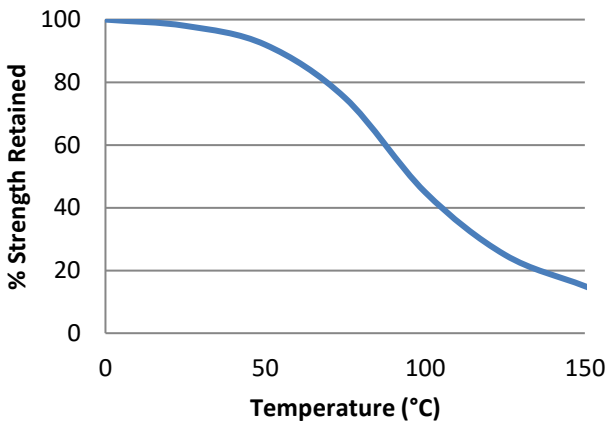
Hot Strength



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