



ASI GM10

GM 10 is a one component, gel-like anaerobic flange sealant that cures at room temperature and seals close fitting joints between metal faces and flanges. Replaces solid gaskets, provides flexible cured films, seals gas and LP gas, gasoline, oils, water and industrial fluids. Typically used as a liquid gasket for pumps, thermostats, compressor, transmission, housing and axle covers. GM 10 is designed to be used and cured at room temperature. Where cured speed is unacceptably long, or large gaps are present, applying activator to the surface will reduce the curing within few minutes.

| | |
|--------------------|--|
| Technology / Base | Methacrylate Ester |
| Type of Product | Flange Sealant |
| Components | One Component |
| Curing | Anaerobic with Secondary Heat Cure or Accelerated with Activator |
| Appearance / Color | Purple |
| Consistency | Light Paste |

Features and Benefits

- Fluorescent UV Indicator
- High Environmental Resistance to Gas, LP gas, Gasoline, Oils, and Industrial Fluids
- High Resistance to Heat, Corrosion, Vibrations, Water, and Many Chemicals

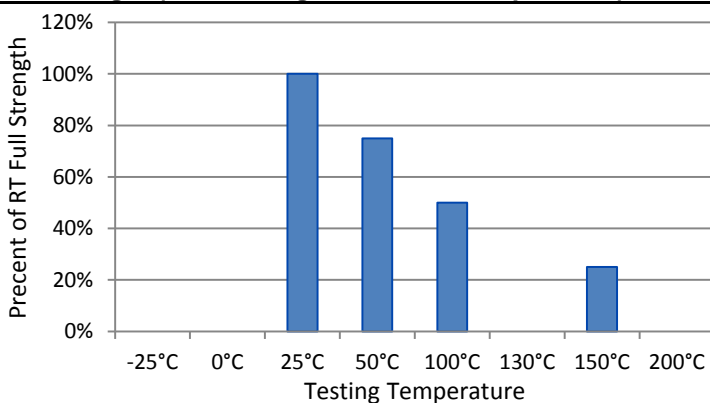
General Instructions

Surfaces to be bonded should be clean and dry and free of grease. Product should be applied in enough quantity to fill all engaged threads or gap. The product performs best in thin bond gaps. Very large gaps may create gaps that will affect the cure speed and overall strength. Good contact is essential. It is recommended to confirm compatibility of the product with all substrates prior to use. This product is not recommended for use with strong oxidizing materials. Where aqueous washing systems are used to clean the surfaces before bonding, these aqueous washes can affect the cure and performance of the adhesive. This product is not normally recommended for use on plastics, users must check compatibility of the product with such substrates.

Safety and Disposal

For complete safety and handling information, please refer to the appropriate Safety Data Sheets prior to using this product.

Hot Strength (%RT strength, tested at temperature)



Note

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Curing Performance

The rate of cure will depend on environmental conditions and the substrates used. The gap of the bond line will affect set speed. Smaller gaps tend to increase set speed. Activators may be applied to further improve set speed, but may also impair overall adhesive performance.

Storage

Products should be stored unopened in a cool, dry place out of direct sunlight. Products may be refrigerated for improved shelf life, but should be brought back to room temperature before use.



Technical Data

| Physical Property | Value | Condition/Method | |
|---|---|--------------------------------------|---------------------------------------|
| Uncured Material Characteristics | | | |
| Viscosity | 200,000 to 350,000 cPs | Brookfield at 25°C, Spindle 2, 5 rpm | |
| Specific Gravity | 1.1 | | |
| Flash Point | > 93°C | | |
| Shelf Life | 12 months unopened | | |
| Storage Condition | 8 to 28°C | | |
| Solubility | | | |
| Gap Fill | | | |
| Set Time on Steel | 48 to 72 hours | | |
| Handling Strength Functional Strength | | | |
| Full Cure Conditions | 24 hours at room temperature, or 45°C bondline temperature for 1 hour to achieve ≥70% of strength on steel, or apply activator to opposite surface as adhesive to | | |
| Cured Material Properties | | | |
| Coefficient of Thermal Expansion | 80 ppm/K | ASTM D696 ASTM C177 | |
| Thermal Conductivity | 0.1 W/mK | | |
| Specific Heat | 0.3 kJ/kgK | | |
| Breakaway Torque | | | |
| Prevailing Torque | | | |
| Breakloose Torque | | | |
| Pin/Collar Shear Strength | | | |
| Service Temperature | -55°C to 150°C | | |
| Shear Strength | 3 to 9 MPa | | |
| Tensile Strength | 7 to 21 MPa | | |
| Pressure Resistance | | | |
| Heat Aging Testing | | | |
| Cure Speed At Various Temperatures | | | |
| | 25% | 50% | % of Room Temperature Strength |
| | | | 100% |
| 5°C | 2 hrs | 4 hrs | 24 to 48 hrs |
| 40°C | 15 min | 30 min | 12 hrs |
| Cure Speed On Various Substrates | | | |
| | 25% | 50% | % of Room Temperature Strength |
| | | | 100% |
| Steel | 1 hr | 3 hrs | 24 hrs |
| Aluminum | 1 hr | 3 hrs | 48 to 72 hrs |
| Stainless Steel | | | |
| Brass | | | |
| Zn Dichromate | 1 hr | 3 hrs | 24 hrs |

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Technical Data

| Physical Property | | Value | Condition/Method |
|---|------------------|--------------------------------|--|
| Cure Speed For Various Gap Sizes | | | % of Room Temperature Strength |
| | 25% | 50% | 100% |
| 0.0mm | 1 hr | 3 hrs | 24 hrs |
| 0.05mm | | | |
| 0.15mm | | | |
| 0.25mm | 24 hrs | 48 to 72 hrs | - |
| 0.5mm | | | |
| Chemical Resistance Testing | | | |
| | Test Temperature | % of Room Temperature Strength | Condition |
| 50% Water/50% Glycol | 87°C | 80% | 1000 hours measured at room conditions |
| Unleaded Gasoline | 22°C | 15% | 1000 hours measured at room conditions |
| Motor Oil | 125°C | 165% | 1000 hours measured at room conditions |
| Brake Fluid | | | |
| Acetone | | | |
| Isopropyl Alcohol | | | |
| Toluene | | | |

Specifications

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