Technical Data Sheet

H.B. Fuller | Engineering Adhesives

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

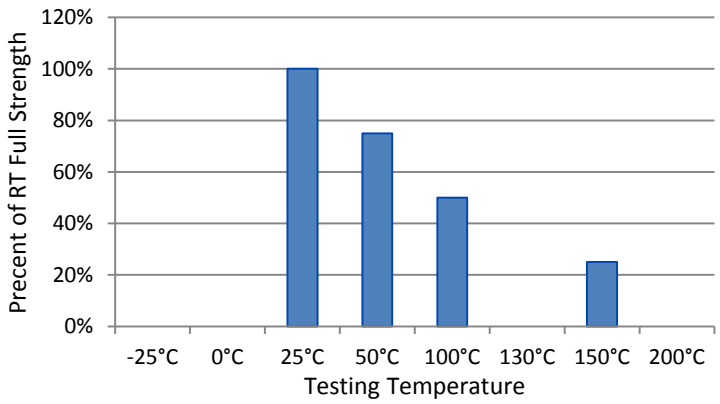
General Instructions

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
Thermal Conductivity	0.1 W/mK	ASTM C177
Specific Heat	0.3 kJ/kgK	
Breakaway Torque		
Prevailing Torque		
Breakloose Torque		
Pin/Collar Shear Strength		
Service Temperature	-55ºC to 150ºC	
Shear Strength	3 to 9 MPa	
Tensile Strength	7 to 21 MPa	
Pressure Resistance		
Heat Aging Testing		

Cure Speed At Various Temperatures			% of Room Temperature Strength
	25%	**50%**	**100%**
5°C	2 hrs	4 hrs	24 to 48 hrs
40°C	15 min	30 min	12 hrs

Cure Speed On Various Substrates			% of Room Temperature Strength
	25%	**50%**	**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

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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