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## TECHNICAL DATA SHEETS TORQUE GM 10

### Description:

**Torque 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.

### Properties of Uncured Product:

Composition	Methacrylate Ester
Appearance	Dark Purple Fluorescent Gel
Specific Gravity (77°F/25°C g/ml)	1.1
Viscosity, Brookfield (77°F/25°C mPa.s)	1.1
Spindle 2 - 5 rpm	200000 to 350000 mPa.s
Flash Point, TCC	>93°C
Shelf life at 20°C	1 year
Storage temperature	8° - 28°C

### CURING PERFORMANCE

**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.

#### HEAT CURE

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 of 45°C and after one hour more than 70% of strength on steel is achieved.

### CURE SPEED VS. SUBSTRATE

% Full strength	Steel	Aluminium
25	1 hrs	1 hrs
50	3 hrs	3 hrs
100	24 hrs	48 - 72 hrs

### CURE SPEED VS. JOINT GAP

% Full strength	Gap 0,0mm	Gap 0,25mm
25	1 hrs	24 hrs
50	3 hrs	48 - 72 hrs
100	24 hrs	-

### CURE SPEED VS. TEMPERATURE

% Full strength	Temperature	
	5°C	40°C
25	2 hrs	15 min
50	4 hrs	30 min
100	24 - 48 hrs	12 hrs

### Properties of Cured Product:

Functional strength at 24 hrs 20° on steel		
Shear strength (ASTM D1002)		3 - 9 N/mm <sup>2</sup>
Tensile strength (DIN 53288)		7 - 21 N/mm <sup>2</sup>
Coefficient of thermal expansion (ASTM D696)		80 X 10 <sup>-6</sup> 1/K
Thermal conductivity (ASTM C177)		0.1 W/Mk
Specific heat		0.3 KJ.Kg <sup>-1</sup> K <sup>-1</sup>
Temperature range		-55° +150°C

### ENVIRONMENTAL RESISTANCE

#### Hot strength at temperature

Test.Temp. °C	% retained strength
20°	100%
50°	75%
100°	50%
150°	25%

#### Heat aging

Samples aged 1000 hours at indicated temperature and tested at room temperature.

Test temp. °C	% retained strength
100°	110%
120°	75%
150°	50%

#### Chemical / Solvent Resistance

Specimens immersed for 1000 days at indicated temperature and tested at room temperature.

	Test Temp. °C	% retained strength
50/50 Water / Glycol	87	80
Unleaded Gasoline	22	15
Motor Oil	125	165

## Engineering Excellence

For technical information  
and support call **1-800-552-0299** or visit our website at

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