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9411 Corsair Road  
Frankfort, IL 60423  
1-800-552-0299 Phone  
1-815-464-5650 Fax

**EMERGENCY PHONE 1-800-255-3924**

## TECHNICAL DATA SHEETS TORQUE GM 50

### Description:

**Torque GM 50** is a anaerobic curing adhesive for the gasketing and sealing of flanges. To replaces solid gaskets, gives flexible cured films. To seal against gases, water, LPG, hydrocarbons, oils and other chemicals. Thixotropic property prevents migration of the sealant before or during curing. Shock and vibrations resistant are unaffected properties of sealing in the range of temperature from -50 to +150°C.

### Properties of Uncured Product:

Composition	Dimethacrylate ester
Appearance	Orange
Specific Gravity (77°F/25°C g/ml)	1.1
Viscosity, Brookfield (77°F/25°C mPa.s)	
Spindle 6- 20 rpm	35000 to 48000 cps
Flash Point, TCC	>93°C
Shelf life at 20°C	1 year
Storage temperature	8° - 28°C

#### HEAT CURE

Typical heat cure conditions consist of heating and maintaining bondline at a temperature of 40°C and after one hour more than 85% of strength on steel is achieved.

#### CURE SPEED VS. SUBSTRATE

% Full strength	Steel	Aluminium
25	30 min	2 hrs
50	1 hrs	5 hrs
100	10-72 hrs	

#### CURE SPEED VS. JOINT GAP

% Full strength	Gap 0.05mm	Gap 0.25mm
25	30 min	15 hrs
50	1 hrs	30 hrs
100	10- 72 hrs	

#### CURE SPEED VS. TEMPERATURE

% Full strength	Temperature	
	5°C	40°C
25	1 hrs	15 min
50	3 hrs	20 min
100	24- 72 hrs	3- 72 hrs

### Properties of Cured Product:

Shear Strength (ASTM D1002)	5 to 12 N.m
Tensile Strength (DIN 53288)	2 to 8 N.m
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
25°	100%
50°	100%
100°	65%
150°	25%

##### Heat ageing

Samples aged 2000 hours at indicated temperature and tested at room temperature.

Test temp. °C	% retained strength
120°	100%
150°	80%

##### Chemical / Solvent Resistance

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

	Test Temp.° C	% retained strength
50/50 Water / Glycol	87	85
Leaded Petrol	22	75
Motor Oil	125	100

### Engineering Excellence

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

**[www.instantca.com](http://www.instantca.com)**

