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**TECHNICAL DATA SHEETS**  
**TORQUE 71TL**

**Description:**

**TORQUE 71TL** is a high strength anaerobic adhesive for locking and sealing of studs, nuts, bolts and threaded fasteners not requiring dismantling. Highly resistant to heat, corrosion, vibrations, water, gases, oils, hydrocarbons, and many chemicals.

**PROPERTIES OF UNCURED PRODUCT (typical value)**

Composition	Dimethacrylate ester
Appearance	Opaque Red Fluorescent Liquid
Specific Gravity (77°F/25°C g/ml)	1.10
Viscosity, Brookfield (77°F/25°C mPa.s)	
Spindle 1- 10 rpm	400 - 600 mPa.
Flash Point, TCC	>93°C
Shelf life at 20°C	1 year
Storage temperature	8° - 28°C

**PROPERTIES OF CURED PRODUCT (typical value)**

**Functional strength at 24 hrs 20° on steel**

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Breakaway torque (ISO 10964)	17- 40 N.m
Prevail torque (ISO 10964)	23- 40 N.m
Coefficient of thermal expansion (ASTM D696)	80 X 10 <sup>-6</sup> 1/K
Thermal conductivity(ASTM C177)	
Temperature range	- 55° +150°C
<b>Meets Mil Spec - MIL- S-46163, Type 1, Grade K</b>	

**ENVIRONMENTAL RESISTANCE**

**Hot strength at temperature**

Test.Temp.°C	%retained strength
100°	65%
120°	60%
150°	45%

**Chemical / Solvent Resistance**

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

	Test Temp.° C	%retained
strength		
50/50 Water / Glycol	87	85
Unleaded Gasoline	22	95
Motor Oil	125	75
Brake Fluid	22	100
Acetone	22	95



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## TORQUE 71TL



### HEAT CURE

Typical heat cure conditions consist of heating and maintaining bondline at a temperature of 40°C and after one hour than 100% of strength on steel is achieved.

### CURE SPEED VS. SUBSTRATE

% Full strength	Steel	Brass	Zn Dichromate
25	15 min	20- 24 hrs	3 hrs
50	40 min		6 hrs
100	24 hrs		

### CURE SPEED VS. TEMPERATURE

% Full strength	Temperature	
	4°C	40°C
25	5 hrs	
50	10 hrs	25 min
100	24 hrs	1- 24 hrs

### DIRECTIONS FOR USE

Use on clean and degreased parts. The product will cure correctly between close fitting flanged parts with gaps up to 0,05mm. Flanges should be tightened as soon as possible after assembly to avoid shimming.

### GENERAL INFORMATION

**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.

**Engineering Excellence**

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

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