

Revised
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TECHNICAL DATA SHEETS TORQUE 80 RC

Description:

Torque 80 RC is a fast curing high strength anaerobic adhesive for locking and sealing threads, and retaining of cylindrical parts. Allows larger machining tolerances. Highly resistant to heat, corrosion, vibrations, water, gases, oils, hydrocarbons, and many chemicals.

Properties of Uncured Product:

Composition	Urethane methacrylate
Appearance	Green, fluorescent liquid
Specific Gravity (77°F/25°C g/ml)	1.11
Viscosity, Brookfield (77°F/25°C mPa.s)	
Spindle 3 - 20 rpm	1400
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 90% of strength on steel is achieved.

CURE SPEED VS. SUBSTRATE

% Full strength	Steel	Alluminium	Zinc Dichromate
25	22 min	2 hrs	40 min
50	34 min	15 hrs	2 hrs
100	18-72 hrs		

CURE SPEED VS. JOINT GAP

% Full strength	Gap 0,05mm	Gap 0,25mm
25	28 min	40 hrs
50	35 min	70 hrs
100	10 - 72 hrs	

CURE SPEED VS. TEMPERATURE

% Full strength	Temperature	
	5°C	40°C
25	3 hrs	7 min
50	6 hrs	8 min
100	24 - 72 hrs	2 - 72 hrs

Properties of Cured Product:

Functional strength at 24 hrs 20° on steel

Shear Strength (ISO10123)	22 to 40 N.m
Shear Strength (DIN 544542)	20 to 35 N.m
Coefficient of thermal expansion (ASTM D696)	80 X 10 ⁻⁶ 1/K
Thermal conductivity (ASTM C177)	0.1 W/Mk
Specific heat	0.3 KJ.Kg ⁻¹ K ⁻¹
Temperature range	-55°+150°C

ENVIRONMENTAL RESISTANCE

Hot strength at temperature

Test.Temp.°C	% retained strength
25°	100%
50°	100%
100°	85%
150°	45%

Heat aging

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

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

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	80
Unleaded Petrol	22	85
Motor Oil	125	100
Brake Fluid	22	80
Acetone	22	90

Engineering Excellence

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

www.instantca.com