

Revised
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TECHNICAL DATA SHEETS

43TL THREADLOCKER

Description:

ADVANCED PERFORMANCE SERIES THREADLOCKER 43TL is a medium strength anaerobic adhesive for thread locking of nuts and bolts of all types that require to be dismantled. Suitable to be used on oily surfaces. Highly resistant to heat, corrosion, vibrations, water, gas, oils, hydrocarbons and many chemicals. Also to be used as a thread sealant in the temperature range -55° +150°C.

Physical Properties:

PROPERTIES OF UNCURED PRODUCT (typical value)

Composition	Dimethacrylate ester
Appearance	Opaque Blue Fluorescent Liquid
Specific Gravity (77°F/25°C g/ml)	:1.08
Viscosity, Brookfield (77°F/25°C mPa.s)	
Spindle 3 - 20 rpm :	5000 mPa.s
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	Brass	Stainless Steel
25	20 min	15 min	10 hrs
50	28 min	20 min	
100	3-72 hrs	1-72 hrs	

CURE SPEED VS. JOINT GAP

% Full strength	Gap 0,05mm	Gap 0,25mm
25	15 min	2 hrs
50	25 min	4 hrs
100	6- 72 hrs	

CURE SPEED VS. TEMPERATURE

% Full strength	Temperature	
	5°C	40°C
25	1 hrs	10 min
50	2 hrs	20 min
100	24 - 72 hrs	2 - 72 hrs



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TORQUE 43TL



PROPERTIES OF CURED PRODUCT (typical value)

Functional strength at 24 hrs 20° on steel

Breakaway torque	(ISO 10964)4,3	15 to 25 N.m
Breakloose torque	(DIN 54454)	14 to 34 N.m
Coefficient of thermal expansion	(ASTM D696)	$80 \times 10^{-6} 1/K$
Thermal conductivity	(ASTM C177)	0.1 W/Mk
Specific heat		$0.3 \text{ Kj.Kg}^{-1} \text{ K}^{-1}$
Temperature range		-55°+150°C

ENVIRONMENTAL RESISTANCE

Hot strength at temperature

Test.Temp.°C	% retained strength
25°	95%
50°	80%
100°	50%
150°	40%

Heat aging

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

Test temp. °C	% retained strength
100°	90%
120°	80%
150°	35%

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
Leaded Petrol	22	95
Motor Oil	125	95
Brake Fluid	22	100
Acetone	22	85

Engineering Excellence

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

www.instantca.com