



80RC

80RC 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.

Technology / Base	Urethane Methacrylate
Type of Product	Retaining Compound Adhesive and Sealant
Components	One Component
Curing	Anaerobic with Secondary Heat Cure
Appearance / Color	Green
Consistency	Liquid

Features and Benefits

- Green Anaerobic Retaining Compound and Sealant
- High Strength
- Fluorescent UV Indicator
- Excellent Gap and Void Filling Capability
- High Resistance to Heat, Corrosion, Vibrations, Water, Gases, Oils, Hydrocarbons, and Many Chemicals

Technical Data

Physical Property	Value	Condition/Method	
Uncured Material Characteristics			
Viscosity	1400 cPs	Brookfield RVT at 25°C, Spindle 3, 20 rpm	
Specific Gravity	1.11		
Flash Point	> 93°C		
Shelf Life	12 months unopened		
Storage Condition	8 to 28°C		
Gap Fill			
Set Time on Steel	12 to 72 hours		
Handling Strength			
Functional Strength			
Solubility			
Full Cure Conditions	12 to 72 hours at 25°C		
Cured Material Properties			
Coefficient of Thermal Expansion	80 ppm/K	ASTM D696 ASTM C177	
Thermal Conductivity	0.1 W/mK		
Specific Heat	0.3 kJ/kgK		
Breakaway Torque		ISO 10123	
Prevailing Torque			
Breakloose Torque			
Pin/Collar Shear Strength	22 to 40 N-m		
Service Temperature	-55°C to 150°C		
Shear Strength			
Tensile Strength			
Pressure Resistance			
Cure Speed At Various Temperatures			
	25%	50%	100%
5°C	3 hrs	6 hrs	24 to 72 hrs
40°C	7 min	8 min	2 to 72 hrs



Technical Data

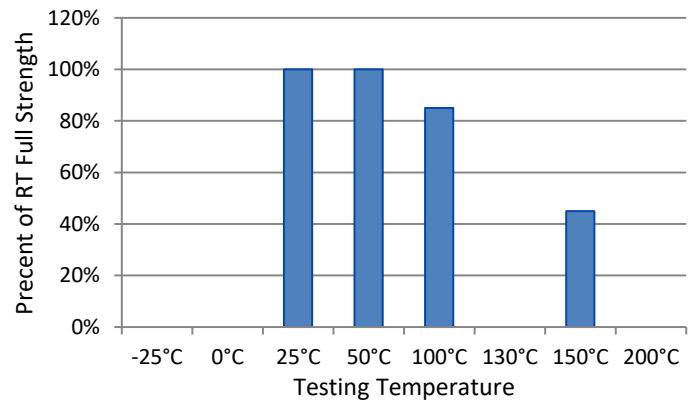
Physical Property		Value	Condition/Method
Cure Speed On Various Substrates			% of Room Temperature Strength
	25%	50%	100%
Steel	22 min	34 min	18 to 72 hrs
Aluminum	2 hrs	15 hrs	
Zn Dichromate	22 min	34 min	18 to 72 hrs
Heat Aging Testing			
	1000 hrs at 120°C	100%	Room Temperature Strength
	1000 hrs at 150°C	100%	Room Temperature Strength
Cure Speed For Various Gap Sizes			% of Room Temperature Strength
	25%	50%	100%
0.05mm	28 min	35 min	10 to 72 hrs
0.25mm	40 hrs	70 hrs	
Chemical Resistance Testing			
	Test Temperature	% of Room Temperature Strength	Condition
50% Water/50% Glycol	87°C	80%	1000 hours measured at room conditions
Unleaded Gasoline	22°C	85%	1000 hours measured at room conditions
Motor Oil	125°C	100%	1000 hours measured at room conditions
Brake Fluid	22°C	80%	1000 hours measured at room conditions
Acetone	22°C	90%	1000 hours measured at room conditions

General Instructions

Surfaces to be bonded should be clean and dry and free of grease. Product should be applied in enough quantity to fill all engaged threads or gap. The product performs best in thin bond gaps. Very large gaps may create gaps that will affect the cure speed and overall strength. Good contact is essential. It is recommended to confirm compatibility of the product with all substrates prior to use. 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.

Specifications

Hot Strength (%RT strength, tested at temperature)



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Storage

Products should be stored unopened in a cool, dry place out of direct sunlight. Products may be refrigerated for improved shelf life, but should be brought back to room temperature before use.

Safety and Disposal

For complete safety and handling information, please refer to the appropriate Safety Data Sheets prior to using this product.

Curing Performance

The rate of cure will depend on environmental conditions and the substrates used. The gap of the bond line will affect set speed. Smaller gaps tend to increase set speed. Activators may be applied to further improve set speed, but may also impair overall adhesive performance.

H.B. Fuller Company
 9001 W. Fey Drive
 Frankfort, IL 60423
 +1.800.552.0317

www.hbfuller.com

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