



20RC

20RC and 20RCHH are anaerobic resins that are the best method for retaining, locking, and sealing a wide range of metal parts. Even in the tightest fitting assemblies voids are presents which allows for movement and potential loosening of the parts. 20RC and 20RCHH form a tough, durable resin, that fills all these voids, creating a unitized assembly that is completely resistant to shock, vibration, and extremely harsh environmental conditions. These materials cure in the absence of air and in the present of metal. They are ideally suited for retaining cylindrical assemblies providing shock and vibration resistance.

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

Features and Benefits

- Green Anaerobic Retaining Compound and Sealant
- High Strength
- 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	8000 cPs (20RC), 12000 cPs (20RCHV)	Brookfield RVT at 25°C, Spindle 5, 20 rpm
Specific Gravity	1.1	
Flash Point	> 100°C	
Shelf Life	12 months unopened	
Storage Condition	8 to 28°C	
Set Time on Steel	12 to 72 hours	
Full Cure Conditions	12 to 72 hours at 25°C	
Cured Material Properties		
Coefficient of Thermal Expansion	80 ppm/K	ASTM D696
Thermal Conductivity	0.1 W/mK	ASTM C177
Specific Heat	0.3 kJ/kgK	
Pin/Collar Shear Strength	>2000 psi	ISO 10123
Service Temperature	-55°C to 150°C	

Cure Speed At Various Temperatures	% of Room Temperature Strength		
	25%	50%	100%
5°C	28 hrs	40 min	15 to 72 hrs
40°C	20 min		

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.

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.

Safety and Disposal

For complete safety



Technical Data

Cure Speed On Various Substrates		% of Room Temperature Strength		
		25%	50%	100%
Steel	1 hr		1.5 hrs	12 to 72 hrs
Aluminum	6 hrs			
Zn Dichromate	1 hr		1.5 hrs	12 to 72 hrs

Cure Speed For Various Gap Sizes		% of Room Temperature Strength		
		25%	50%	100%
0.05mm	2 hrs		2.5 hrs	12 to 72 hrs
0.25mm	13 hrs		20 hrs	72 hrs

Chemical Resistance Testing

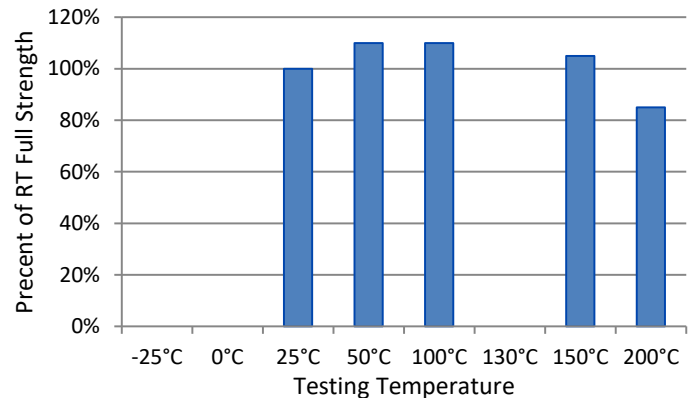
	Test Temperature	% of Room Temperature Strength	Condition
50% Water/50% Glycol	87°C	80%	1000 hours measured at room conditions
Unleaded Gasoline	22°C	95%	1000 hours measured at room conditions
Motor Oil	125°C	100%	1000 hours measured at room conditions
Brake Fluid	22°C	100%	1000 hours measured at room conditions
Acetone	22°C	95%	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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