

#### **TECHNICAL DATA SHEET**

# HIGH STRENGTH RED GEL THREADLOCKER

## PART NO. AT105GEL

## DESCRIPTION

AT105GEL is a single-component, red, high-strength, threadlocking adhesive. Gel formula provides a 'no-mess application' without drips, mess or waste, allowing for easy overhead and vertical applications. This formula is recommended in applications where permanent adhesion is needed and may require heat to be disassembled. Its innovative pump design improves dispensing ease and accuracy, while also limiting cleanup.

### **PHYSICAL PROPERTIES**

Technology / Base	Dimethacrylate Ester
Type of Product	Adhesive and Sealant
Components	One Component
Curing	Anaerobic with Secondary Heat Cure
Appearance / Color	Red
Consistency	Thixotropic Gel

## **TECHNICAL DATA**

Property	Value	Method/Condition		
Rheology				
Viscosity	500,000 +/- 150,000 cps	Brookfield at 25°C, Spindle 7, 2 rpm		
Density				
Specific Gravity	1.10	N/A		
Uncured Materials Characteristics				
Flash Point Gap Fill Shelf Life Storage Condition	> 93°C (200°F) 0.5 inch 12 months unopened 20°C (68°F)	N/A N/A N/A N/A		
Cured Materials Characteristics				
Full Cure Conditions Cure Appearance RoHS Compliant	24 hours at 25°C Red Solid Yes	N/A N/A N/A		
Cured Mechanical Properties				
Locking Strength Breakaway Torque Prevailing Torque Service Temperature	High 150 to no limit 200 to no limit -55°C to 150°C (-65°F to 300°F)	N/A ASTM D5649 ASTM D5649 N/A		



#### **INSTRUCTIONS**

Surfaces to be bonded should be clean, dry and free of grease. Product should be applied in enough quantity to fill all engaged threads. The product performs best in thin bond gaps. Very large gaps may create voids that will affect the cure speed and overall strength. Good contact is essential. An adequate bond develops in 15 to 45 minutes and maximum strength is attained per the cure schedule indicated. This product is not recommended for use in pure oxygen environments and/or oxygen-rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials. This product is not designed for plastics, particularly thermoplastics, where stress cracking of the plastic could result. It is recommended to confirm compatibility of the product with all substrates prior to 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.

#### **STORAGE**

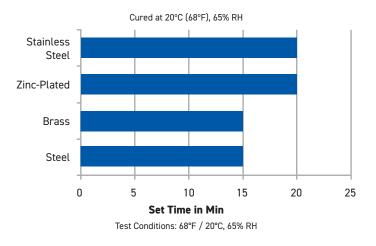
Products should be stored unopened in a cool, dry place out of direct sunlight. Products may be refrigerated for improved shelf life, but should be brought back to room temperature before use.

#### **SAFETY & DISPOSAL**

For safe handling information on this product, consult the Safety Data Sheet (SDS).



## **SET TIME ON VARIOUS SUBSTRATES**

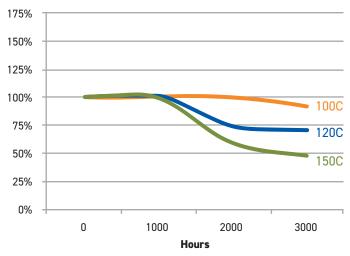


## SOLVENT RESISTANCE

Solvent	Example	Resistance
Alcohol	Ethanol, methanol	Excellent
Ester (aromatic)	Ethylacetate	Poor
Ketone (aromatic)	Acetone, benzophenone	Poor
Aliphatic hydrocarbon (alkanes)	Petrol, heptanes, hexane	Good
Aromatic hydrocarbons	Benzyl, toluol, xylol	Good
Halogenated hydrocarbons	Methylenchloride, chloroform, chlorobenzol	Poor
Weak aqueous acid	Nitrite, muriatic acid, sulphuric acid, phosphoric acid	Excellent (poor if concentrated)
Weak aqueous base	Sodium hydroxide solution, caustic potash	Excellent (poor if concentrated)

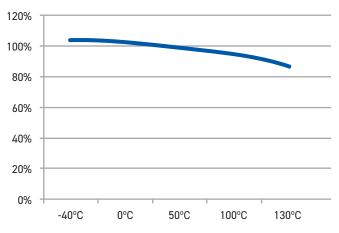
#### **HEATING AGING**

Aged at Temperature Indicated & Tested at 22°C



### HOT STRENGTH

%RT Strength, Tested at Temperature



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