



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

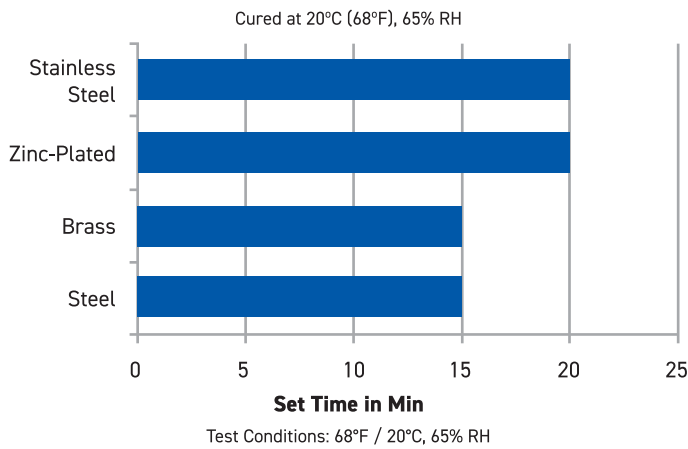
Products should be stored unopened in a cool, dry place out of direct sunlight. Products may be refrigerated for improved shelf life, but should be brought back to room temperature before use.

## SAFETY & DISPOSAL

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



## SET TIME ON VARIOUS SUBSTRATES

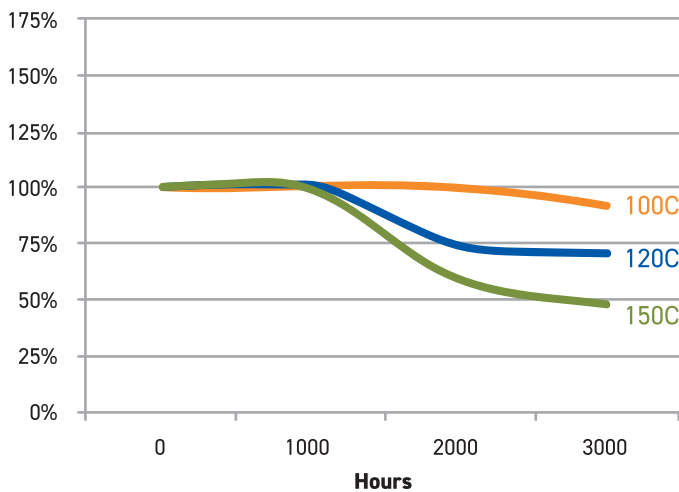


## SOLVENT RESISTANCE

| 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) |

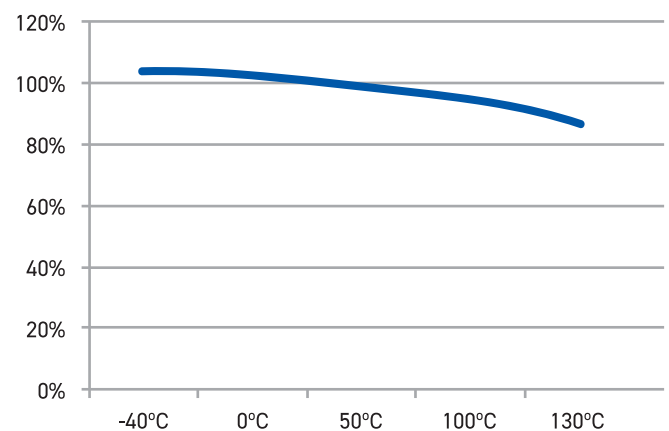
## HEATING AGING

Aged at Temperature Indicated & Tested at 22°C



## HOT STRENGTH

%RT Strength, Tested at Temperature



## DISCLAIMER

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