

LOCTITE® 564

April 2010

PRODUCT DESCRIPTION

LOCTITE® 564 provides the following product characteristics:

Technology	Acrylic
Chemical Type	Methacrylate ester
Appearance (uncured)	White to off-white paste ^{LMS}
Components	One component - requires no mixing
Viscosity	High
Cure	Anaerobic
Secondary Cure	Activator
Application	Thread sealing
Strength	Low

LOCTITE® 564 is designed for the locking and sealing of metal pipes and fittings. The lubricating properties of LOCTITE® 564 facilitate proper assembly and torque tightening of piping system components. The product cures when confined in the absence of air between close fitting metal surfaces and prevents loosening and leakage from shock and vibration.

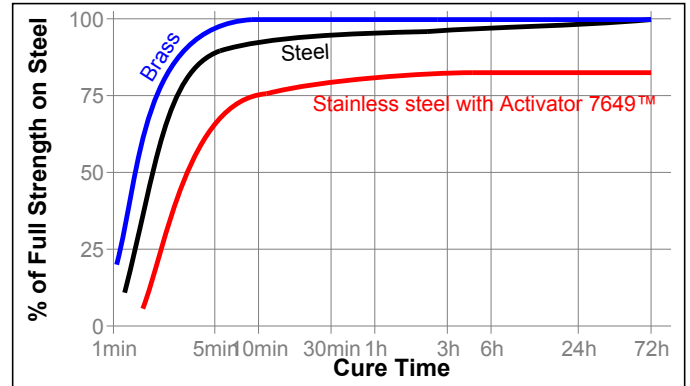
TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C 1.17
 Flash Point - See SDS
 Viscosity, Brookfield - RVF, 25 °C, mPa·s (cP):
 Spindle 7., speed 20 rpm, 49,500 to 132,000^{LMS}

TYPICAL CURING PERFORMANCE

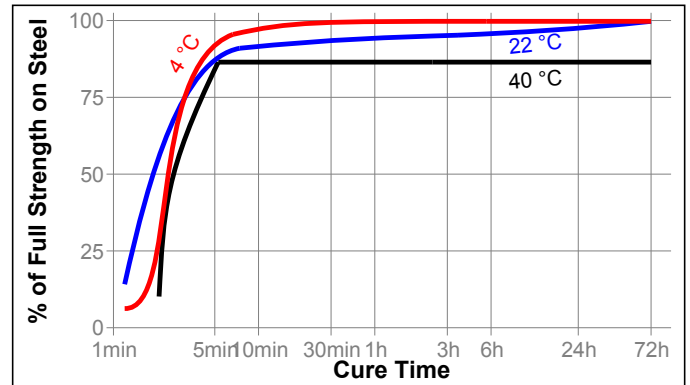
Cure Speed vs. Substrate

The rate of cure will depend on the substrate used. The graph below shows the breakaway strength developed with time on 3/8 NPT steel pipe tees and plugs compared to different materials and tested according to ASTM D6396. All samples pre-torqued to 27 N·m.



Cure Speed vs. Temperature

The rate of cure will depend on the temperature. The graph below shows the breakaway strength developed with time at different temperatures on 3/8 NPT steel pipe tees and plugs and tested according to ASTM D6396.



TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

After 72 hours @ 22 °C

Breakaway Torque, ASTM D 6396, Pre-torqued to 27 N·m:
 3/8 NPT steel pipe tees and plugs N·m 34
 (lb.in.) (300)

After 24 hours @ 22 °C

Compressive Shear Strength, ISO 10123:
 Steel pins and collars N/mm² 0.2 to 1.5^{LMS}
 (psi) (30 to 220)

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\mu\text{m} / 25.4 = \text{mil}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{N/mm}^2 \times 145 = \text{psi}$
 $\text{MPa} \times 145 = \text{psi}$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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Reference 1.3