



1001 Trout Brook Crossing
 Rocky Hill, CT 06067-3910
 Telephone: (860) 571-5100
 FAX: (860) 571-5465

Technical Data Sheet

Product 564

Maintenance, Repair & Overhaul, November 1998

PRODUCT DESCRIPTION

LOCTITE® Product PST® 564 Thread Sealant is a single component, industrial grade, anaerobic pipe sealant formulated specifically for fast, reliable curing on metal, tapered pipe threads and fittings. The lubricating properties of this creamy, paste-like compound facilitate proper assembly and torque tightening of piping system components. Product 564 cures rapidly to secure and seal fittings for high pressure operation (up to 10,000 psi with stainless steel fittings). The controlled strength characteristics allow even larger pipe sizes, such as those found in the gas utility lines, to be disassembled quickly and easily.

TYPICAL APPLICATIONS

Recommended for sealing and easy removal of metal tapered pipe threads and fittings and for industrial applications in the chemical processing, petroleum refining, pulp/paper, waste treatment, textile, utilities/power generation, marine, automotive, industrial equipment and gas compression industries.

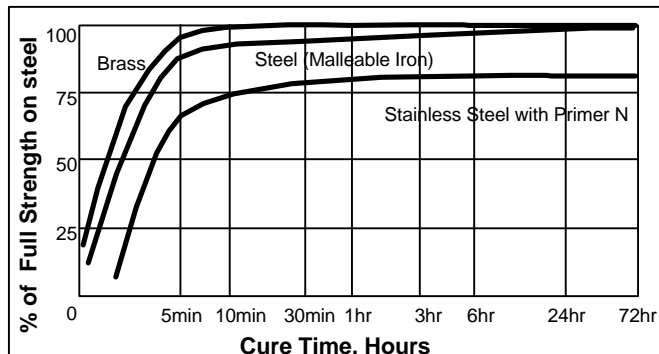
PROPERTIES OF UNCURED MATERIAL

	Value	Typical Range
Chemical Type	Methacrylate Ester	
Appearance	White opaque paste	
Specific Gravity @ 25°C	1.17	
Viscosity, @ 25°C, mPa.s (cP)		
Brookfield RVF		
Spindle 7 @ 20 rpm	90,500	49,000 to 132,000
Flash Point (TCC), °C (°F)	>93 (>200)	

TYPICAL CURING PERFORMANCE

Cure speed

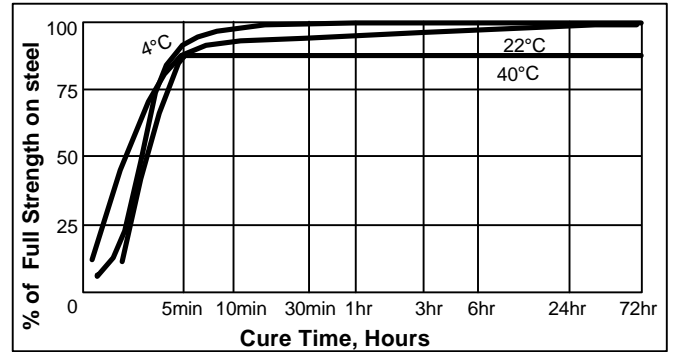
The rate of cure will depend on substrate used. The graph below shows the breakaway strength developed with time on 3/8 inch NPT pipe tees and plugs, compared to different materials*.



* Note: All samples pre-torqued to 240 in-lbs at time of assembly.

Cure speed vs. temperature

The rate of cure will depend on the temperature. The graph below shows the shear strength developed with time on 3/8 inch NPT steel (malleable iron) pipe tees and plugs



PERFORMANCE OF CURED MATERIAL

3/8 inch NPT steel (malleable iron) pipe tees and plugs cured for 72 hrs @ 22 °C*

	Typical Value
Breakaway torque, N.m	34
(in-lb)	(302)

American Gas Association

Certified to A.G.A. Requirements NO. 4-90 for natural and LP gases (vapor state) up to 300 psig for operating temperatures of -54°C to +149°C (-65°F to +300°F)

TYPICAL ENVIRONMENTAL RESISTANCE

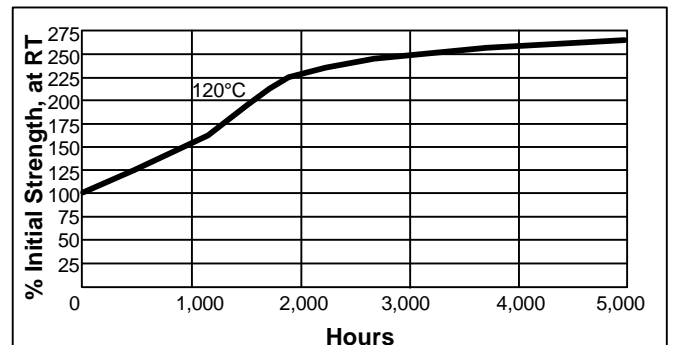
Test Procedure : All samples pre-torqued to 240 in-lbs at time of assembly.

Substrate: 3/8 inch NPT steel (malleable iron) fittings

Cure procedure: 72 hours at 22°C

Heat Aging

Aged at temperature indicated and tested at 22°C



NOT FOR PRODUCT SPECIFICATIONS

THE TECHNICAL DATA CONTAINED HEREIN ARE INTENDED AS REFERENCE ONLY.

PLEASE CONTACT LOCTITE CORPORATION QUALITY DEPARTMENT FOR ASSISTANCE AND RECOMMENDATIONS ON SPECIFICATIONS FOR THIS PRODUCT.

ROCKY HILL, CT FAX: +1 (860)-571-5473

DUBLIN, IRELAND FAX: +353-(1)-451-9959

Chemical / Solvent Resistance

Aged under conditions indicated and tested at 22°C

Solvent	% Initial Strength retained after 30 days
Air reference @ 87°C	131
Motor oil	125
Unleaded gasoline	99
Phosphate ester	116
Isopropyl alcohol	99
Automotive transmission fluid	126
Brake fluid	97
Distilled water	161
Water-Glycol	153

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

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

Directions for use

1. Be sure all parts have been cleaned and are free of oils or contaminants.
2. Apply product to the leading threads of the male fitting, leaving the first thread free of sealant. Force material into the threads to thoroughly fill the voids.
3. Using accepted trade practices, assemble and wrench-tighten fittings until proper alignment is obtained.
4. Properly tightened fittings will seal instantly to moderate pressures. For maximum pressure resistance and solvent resistance allow the product to cure a minimum of 24 hours.
5. To obtain a fast seal against high pressure and chemicals, or under cold temperature conditions spray the threads with Loctite 7649 Primer N before assembly.

Storage

Product shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8°C to 28°C (46°F to 82°F) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused product, do not return any material to its original container. For further specific shelf life information, contact your local Technical Service Center.

Data Ranges

The data contained herein may be reported as a typical value and/or range. Values are based on actual test data and are verified on a periodic basis.

Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Loctite Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose,**

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