LOCTITE® 5570™ WHITE

February 2013

PRODUCT DESCRIPTION

LOCTITE® 5570™ WHITE provides the following product characteristics:

Technology	Flextec™ Polymer
Chemical Type	Modified silane polymer
Appearance (uncured)	White paste[LMS]
Components	One part - requires no mixing
Viscosity	Paste
Cure	Atmospheric moisture
Service Temperature	-30 to 80°C
Maximum Intermittent Exposure Temperature	100°C
Application	Sealing or Bonding

LOCTITE® 5570™ WHITE is a high strength, high elongation adhesive used for elastic bonding and sealing on various substrates. It is a one component adhesive based on a Flextec™ polymer, which cures by reaction with moisture to an elastomeric thermoset product. The skin formation and curing times are dependent on humidity, temperature, and joint depth. By increasing the exposure to moisture these times can be reduced. LOCTITE® 5570™ WHITE is sag resistant and has a high initial tack. It is non-corrosive, free of solvents, isocyanates, silicones, PVC, and is odorless. LOCTITE® 5570™ WHITE demonstrates good adhesion to a wide variety of substrates and is compatible with suitable paint systems. It also demonstrates good UV resistance and can therefore be used for interior and exterior applications.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Density, ISO 2811-1 @ 22 °C, g/ml	1.28 to 1.44[LMS]
Extrusion Rate, g/min	200 to 900[LMS]
Flow, ISO 7390, mm	0 to 3[LMS]
Flash Point - See MSDS	

TYPICAL CURING PERFORMANCE

Under normal conditions, the atmospheric moisture initiates the curing process. The product develops functional strength in 24 hours and fully cures in 7 days.

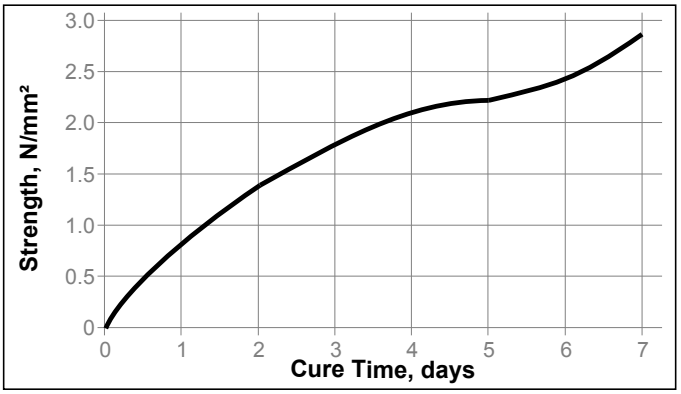
Skin Over Time

Skin over time is the time the surface of the adhesive forms a skin upon exposure to atmospheric moisture at 25 ± 2 °C, 50 ± 5% RH.

Skin Over Time, minutes	10 to 60[LMS]

Cure Speed vs. Time

The graph below shows the shear strength developed over time at 22 °C / 50 % RH on mild steel (grit blasted) and tested according to ISO 4587.



Depth of Cure

The depth of cure depends on temperature and humidity. Depth of cure was determined by filling a 12 mm deep cup and removing the cured film of material. The cured section of product is measured to determine depth of cure.

Depth of Cure

Depth of cure, mm/d	1 to 6[LMS]

TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 21 days @ 22 °C / 50±5 % RH

Physical Properties:

Elongation, at break, ISO 527-3, %	230	
Tensile Strength, ISO 527-3	N/mm²	2.4
	(psi)	(380)
Glass Transition Temperature (Tg), ISO 11357-2, °C	-64	
Non-Volatile Content, ASTM D 2369, %	98	
Shore Hardness, ISO 868, Durometer A	53	

Electrical Properties:

Dielectric Constant , IEC 60250:	
1kHz	6.6
100 kHz	6.4
1 MHz	6.3
Surface Resistivity, IEC 60093, Ω	3.0×10^{14}
Volume Resistivity, IEC 60093, Ω·cm	4.8×10^{10}

TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Cured for 21 days @ 22 °C

Lap Shear Strength, ISO 4587:

Steel (grit blasted)	N/mm²	2.8
	(psi)	(400)
Stainless Steel	N/mm²	2.8
	(psi)	(410)

Galvanized Steel	N/mm² (psi)	2.6 (380)
Aluminum	N/mm² (psi)	1.9 (270)
Zinc dichromate	N/mm² (psi)	2.7 (390)
Wood (Pine)	N/mm² (psi)	1.2 (170)
Glass	N/mm² (psi)	2.6 (370)
Fiberglass	N/mm² (psi)	1.7 (240)
EPDM	N/mm² (psi)	0.2 (25)
Buna-N	N/mm² (psi)	0.5 (70)
Block Shear Strength, ISO 13445:		
Polycarbonate	N/mm² (psi)	0.3 (40)
PVC	N/mm² (psi)	2.9 (420)
ABS	N/mm² (psi)	1.9 (270)
Nylon	N/mm² (psi)	3.2 (470)
Polypropylene	N/mm² (psi)	0.2 (30)
"T" Peel Strength, ISO 11339:		
Aluminum	N/mm (lb/in)	0.5 (2.8)
Impact Strength, ISO 9653, J:		
Aluminum		3.4

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. For best performance bond surfaces should be clean and free from grease.
2. Moisture curing begins immediately after the product is exposed to the atmosphere, therefore parts to be assembled should be mated within a few minutes after the product is dispensed.
3. The bond should be allowed to cure (e.g. seven days), before subjecting to heavy service loads.
4. Excess material can be easily wiped away with non-polar solvents.

Loctite Material Specification[LMS]

LMS dated August 16, 2007. Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Quality.

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

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

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, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Trademark usage

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

Reference 0.2