

LOCTITE® SI 5470™

November 2019

PRODUCT DESCRIPTION

LOCTITE® SI 5470™ provides the following product characteristics:

Technology	Silicone
Appearance (uncured)	White/pale yellow paste <small>LMS</small>
Chemical Type	Acetoxy
Temperature Range, °C	-40 to 50
Components	One component with mechanically mixed nitrogen gas
Primary cure	Ultraviolet (UV) light
Secondary Cure	Moisture
Application	Gasketing
Cure	

LOCTITE® SI 5470™ is a dual cure UV + Moisture silicone sealant. The product is mixed mechanically with nitrogen gas to produce a closed cell foam gasket. Upon exposure to sufficient UV light, this product forms a soft, flexible, low modulus serviceable gasket for sealing applications. This product offers excellent adhesion to plastics and metals.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.03
Extrusion Rate, g/min:	
Pressure 0.62 MPa, temperature 25 °C:	
Semco Cartridge	155

TYPICAL CURING PERFORMANCE

Normal processing conditions will include exposure to sufficient UV light irradiance to effectively cure the material. Surface and/or atmospheric moisture will promote the cure of material in shadowed regions. Although functional strength is developed almost instantly due to the UV curing nature of LOCTITE® SI 5470™, increased cure properties are developed during 72 hours at ambient conditions.

Surface Cure

Tack Free Time , ASTM C679 , seconds	15
70 mW/cm ² , measured @365 nm	
UV Depth of Cure , ASTM C679 , mm	12
60 seconds @70 mW/cm ² , measured @365 nm Non-reflective black vinyl cap	

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties

Shore Hardness, ISO 868 , Durometer OO	54
Elongation, at break, ISO 37, %	163
Tensile Strength , ISO 37, N/mm ² (psi)	0.3 (43.5)

Physical Properties

Compression Set @20% initial deflection, %
ASTM D395, method B:

Clamped for 22 hours @25°C	21 %
Clamped for 70 hours @25°C	28 %

Compression Set @30% initial deflection, %
ASTM D395, method B:

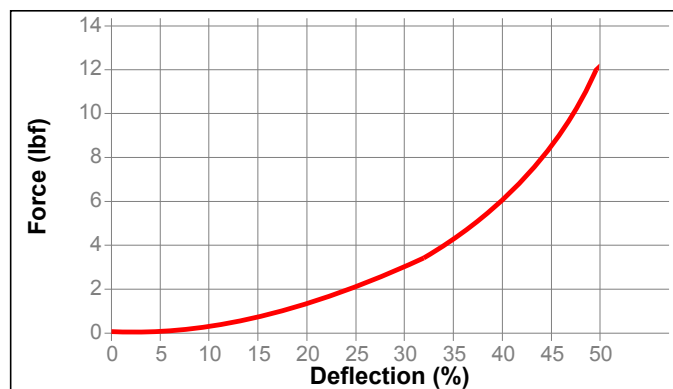
Clamped for 22 hours @25°C	20 %
Clamped for 70 hours @25°C	28 %

Compression Set @40% initial deflection, %
ASTM D395, method B:

Clamped for 22 hours @25°C	19 %
Clamped for 70 hours @25°C	30 %

Force to Deflect

The following graph shows the force required to deflect the product a given percentage, lbf, ASTM D575, 1/2" thickness, 1 1/8" diameter.



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 Safety Data Sheet (SDS).

Directions For Use:

1. This product is UV light sensitive: exposure to daylight, UV light and artificial lighting should be kept to a minimum during storage and handling. .
2. This product is sensitive to atmospheric moisture: exposure to air should be kept to a minimum during storage and handling. .

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 28°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 Henkel Representative.

Conversions

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

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Reference 1.0