Technical Data Sheet

LOCTITE® SF 770

Known as LOCTITE® 770
May 2021

PRODUCT DESCRIPTION

LOCTITE® SF 770 provides the following product characteristics:

Technology	Primer for Cyanoacrylate
Chemical Type	Aliphatic amine
Solvent	Isopropyl acetate
Appearance	Transparent to slightly hazy liquid
Fluorescence	Positive under UV light
Viscosity	Very low
Cure	Not applicable
Application	CA surface primer

LOCTITE® SF 770 is a primer used to make polyolefin and other low energy surfaces suitable for bonding with LOCTITE® cyanoacrylate adhesives. On such treated surfaces the cured performance of cyanoacrylate adhesives is generally similar to that described in the TDS for the relevant adhesive. It is only recommended for difficult to bond substrates which include polyethylene, polypropylene, polytetrafluoroethylene (PTFE) and thermoplastic rubber materials. LOCTITE® SF 770 is not recommended in assemblies where high peel strength is required.

TYPICAL PROPERTIES

Specific Gravity @ 23°C	0.87
Viscosity, Cone & Plate, 25°C, mPa·s (cP):	0.62
Cone: CP50-1, Shear Rate: 3,000 s^{-1}	
Drying Time @ 23°C, seconds	
Steel	9
Polypropylene	9
Polyethylene	8
On Part Life, hours	8

TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Substrates treated with primer LOCTITE® SF 770
Cured for 24 hours @ 23 °C / 50% RH:

Block Shear Strength, ISO 13445:

Polypropylene and LOCTITE® 406	N/mm² (psi)	15 (2,200)
Polypropylene and LOCTITE® 496	N/mm² (psi)	4.8 (700)
Polypropylene and LOCTITE® 460	N/mm² (psi)	14 (2,100)
Acetal and LOCTITE® 406	N/mm² (psi)	14 (2,000)

HDPE treated with LOCTITE® SF 770 to:

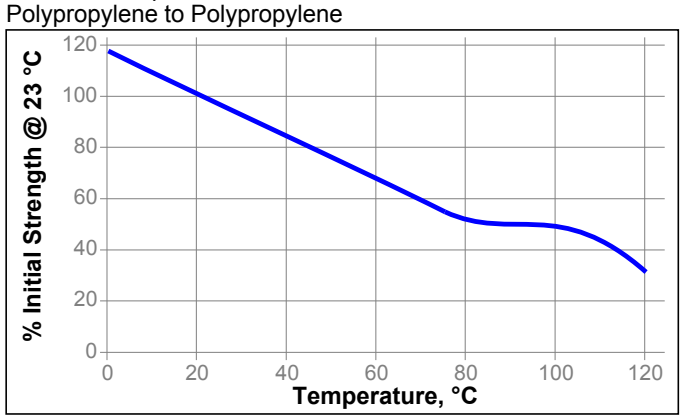
Mild Steel (Grit Blasted) without primer and LOCTITE® 406	N/mm² (psi)	15 (2,200)
Polypropylene and LOCTITE® 406 (with primer on polypropylene)	N/mm² (psi)	13 (1,900)

TYPICAL ENVIRONMENTAL RESISTANCE

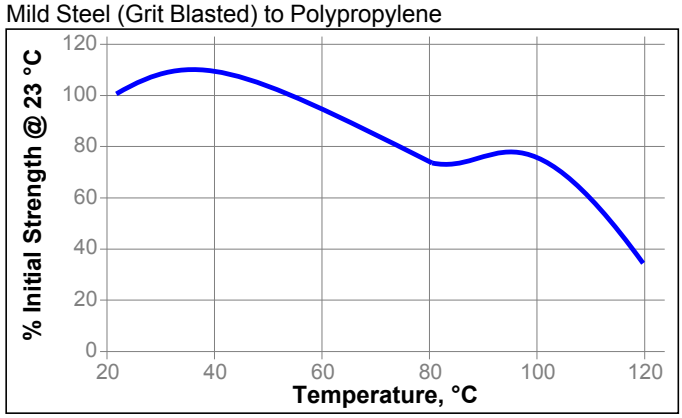
Substrates treated with primer LOCTITE® SF 770 and bonded with adhesive LOCTITE® 401™.
Cured for 72 hours @ 23°C / 50% RH
Block Shear Strength, ISO 13445

Hot Strength

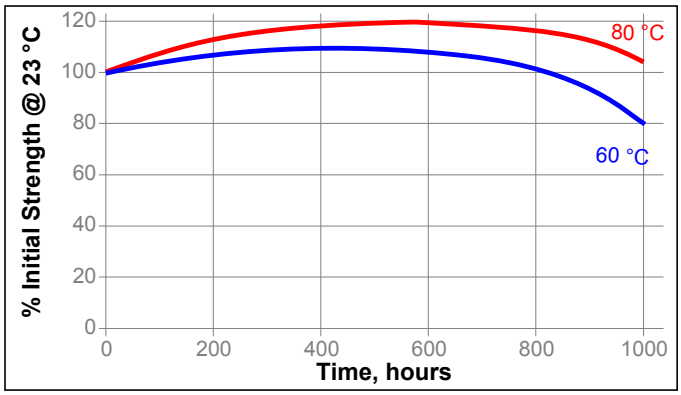
Tested at temperature
Polypropylene to Polypropylene



Mild Steel (Grit Blasted) to Polypropylene



Heat Aging
Aged at temperature indicated and tested @ 23 °C, Polypropylene treated with LOCTITE® SF 770 and bonded with adhesive LOCTITE® 401™.



Chemical/Solvent Resistance
Aged under conditions indicated and tested @ 23°C, Substrates treated with primer LOCTITE® SF 770 and bonded with adhesive LOCTITE® 406™.

		% of initial strength		
Environment	**°C**	**100 h**	**500 h**	**1000 h**
Water	23	100	100	100
95% RH	40	100	100	100

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
Primer may be applied by spraying, brushing or dipping at ambient temperature. Excess primer should be avoided. Presence of primer may be detected by means of a UV inspection lamp (365 nm). If polyolefin and more active or easier to bond materials are involved, apply the primer to the polyolefin only. For best results, apply LOCTITE® cyanoacrylate adhesive and bond assembly right after the LOCTITE® SF 770 dries on the surface of the substrate.

Handling Precautions
Primer must be handled in a manner applicable to highly flammable materials and in compliance with relevant local regulations.The solvent can affect certain plastics or coatings. It is recommended to check all surfaces for compatibility before use.

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 Henkel representative.

Product Specification
The technical data contained herein are intended as reference only and are not considered specifications for the product. Product specifications are located on the Certificate of Analysis or please contact Henkel representative.

Approval and Certificate
Please contact a Henkel representative for related approval or certificate of this product.

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

Temperature/Humidity Ranges: 23 °C / 50% RH = 23±2 °C / 50 ±5% RH

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

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