

## LOCTITE® SF 770

Known as LOCTITE® 770  
May 2021**PRODUCT DESCRIPTION**

LOCTITE® SF 770 provides the following product characteristics:

<b>Technology</b>	Primer for Cyanoacrylate
Chemical Type	Aliphatic amine
Solvent	Isopropyl acetate
Appearance	Transparent to slightly hazy liquid
Fluorescence	Positive under UV light
Viscosity	Very low
<b>Cure</b>	Not applicable
<b>Application</b>	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 <sup>-1</sup>	
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/mm <sup>2</sup> (psi)	15 (2,200)
Polypropylene and LOCTITE® 496	N/mm <sup>2</sup> (psi)	4.8 (700)
Polypropylene and LOCTITE® 460	N/mm <sup>2</sup> (psi)	14 (2,100)
Acetal and LOCTITE® 406	N/mm <sup>2</sup> (psi)	14 (2,000)

HDPE treated with LOCTITE® SF 770 to:

Mild Steel (Grit Blasted) without primer and LOCTITE® 406	N/mm <sup>2</sup> (psi)	15 (2,200)
--	----------------------------	---------------

Polypropylene and LOCTITE® 406  
(with primer on polypropylene)

N/mm<sup>2</sup>  
(psi)

13  
(1,900)

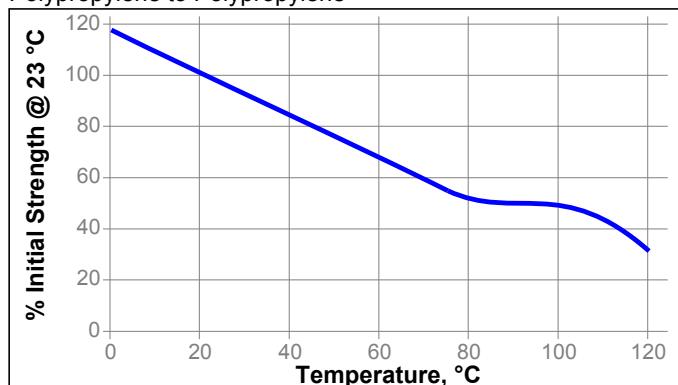
**TYPICAL ENVIRONMENTAL RESISTANCE**

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

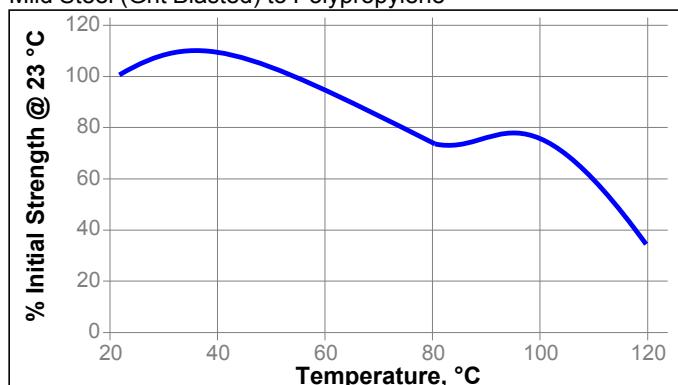
**Hot Strength**

Tested at temperature

Polypropylene to Polypropylene

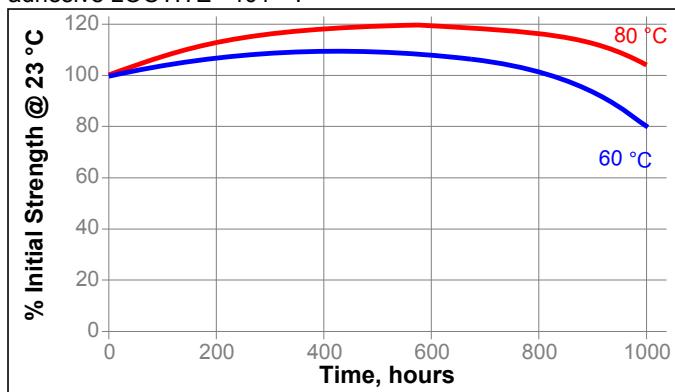


Mild Steel (Grit Blasted) to Polypropylene



**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™.

Environment	°C	% of initial strength		
		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 $\pm$ 2 °C / 50 $\pm$ 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/mm<sup>2</sup> 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

**Disclaimer**

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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

**In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:**

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

**In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:**

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. Henkel is 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.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

**In case products are delivered by Henkel Corporation or Henkel Canada, Inc. the following disclaimer is applicable:**

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 1.5

