

LOCTITE® 404 O-Ring Kit

November 2025

PRODUCT DESCRIPTION

LOCTITE® 404 O-Ring Kit provides the following product characteristics:

Technology	Cyanoacrylate
Chemical type	Ethyl cyanoacrylate
Appearance (uncured)	Transparent, colorless to straw colored liquid
Fluorescence	Positive under UV light
Components	One component – requires no mixing
Viscosity	Low
Cure	Humidity
Application	Bonding
Key substrates	Plastics and rubbers

LOCTITE® 404 O-Ring Kit is recommended for making replacement, high performance o-rings in less than a minute. It is ideal as a supplement to existing o-ring inventory to eliminate out of stock situations or as a handy field repair kit.



CONTENTS

- Loctite® 404 Adhesive – 0.33 oz.
- Water proofing solution – 1 oz.
- O-ring fixture
- Razor blade
- Buna N cord stock (3/32", 1/8", 3/16", 1/4")

TYPICAL APPLICATIONS

- Pump seals
- Flanged pipe seals
- Vacuum seals
- Irregular shaped seals

*** Not recommended for dynamic o-ring seals**

DIRECTIONS FOR USE

Read thoroughly before opening package

1. Remove protective oil film from cutting blade before use.
2. Determine the length of cord required by placing the cord in the groove or around the shaft where seal is required and mark the cord. Add 1/4" beyond the mark and cut the cord. (A rough cut is sufficient at this point).
3. **Square the ends of the cord** using the supplied fixture. Insert the cord stock in the proper diameter hole and stop the cord on the other side with your finger. Holding the cord at a right angle to the fixture, insert the cutting blade in the slot at the top of the fixture and cut the cord. Repeat this procedure to square the other end of the cord.
4. Apply LOCTITE® 404 Adhesive sparingly to one end of the cord.
5. Immediately, using the proper V-groove at the end of the splicing fixture, place two ends of the cord in the groove, slide the ends into contact and hold firmly for 30 seconds.
6. Remove excess adhesive. Do not submerge bond in solvent.
7. For waterproof seal, brush a thin coating of LOCTITE® MR 6222 Waterproofing Solution to the bond line.

Your O-ring is now ready for service.

TYPICAL PROPERTIES OF CORD STOCK MATERIAL

Property	Typical value
Hardness, shore A	70 +/-5
SAE 120 R Class 1 ASTM D2000-2BG715	

LOCTITE® 404

Specific gravity @ 25°C	1.09
Viscosity, brookfield - LVF, 25°C, mPa·s (cP):	
Spindle 1, speed 30 rpm,	70 to 110

TYPICAL CURING PERFORMANCE

Under normal conditions, the atmospheric moisture initiates the curing process. Although full functional strength is developed in a relatively short time, curing continues for at least 24 hours before full chemical/solvent resistance is developed.

Cure Speed vs. Substrate

The rate of cure will depend on the substrate used. The table below shows the fixture time achieved on different materials at 22 °C / 50% relative humidity. This is defined as the time to develop a shear strength of 0.1 N/mm².

Fixture time, seconds	
Steel (degreased)	15 to 30
Aluminum	2 to 10
Neoprene	<5
Rubber, nitrile	<5
ABS	2 to 10
PVC	2 to 10
Polycarbonate	15 to 50
Phenolic	5 to 15

Cure Speed vs. bond gap

The rate of cure will depend on the bondline gap. Thin bond lines result in high cure speeds, increasing the bond gap will decrease the rate of cure.

Cure speed vs. activator

Where cure speed is unacceptably long due to large gaps, applying activator to the surface will improve cure speed. However, this can reduce ultimate strength of the bond and therefore testing is recommended to confirm effect.

TYPICAL PERFORMANCE OF CURED MATERIAL

Physical properties:

Coefficient of thermal expansion, ISO 11359-2, K ⁻¹	80×10 ⁻⁶
Coefficient of Thermal Conductivity, ISO 8302, W/(m·K)	0.1
Glass transition temperature, ASTM E 228, °C	120

Electrical properties:

Dielectric Constant / Dissipation Factor, IEC 60250:	
0.05 kHz	2.3 / <0.02
1 kHz	2.3 / <0.02
10 kHz	2.3 / <0.02
Volume resistivity, IEC 60093, Ω·cm	10×10 ¹⁵
Dielectric breakdown strength, IEC 60243-1, kV/mm	25

Adhesive properties

After 24 hours @ 22°C

Lap Shear Strength, ISO 4587:

Steel (grit blasted)	N/mm ² (psi)	18 to 26 (2,610 to 3,770)
Aluminum (etched)	N/mm ² (psi)	11 to 19 (1,595 to 2,755)
ABS	N/mm ² (psi)	>6 (>870)
PVC	N/mm ² (psi)	>4 (>580)
Polycarbonate	N/mm ² (psi)	>5 (>725)
Phenolic	N/mm ² (psi)	5 to 15 (725 to 2,175)
Neoprene	N/mm ² (psi)	>10 (>1450)
Nitrile	N/mm ² (psi)	>10 (>1450)

After 2 minutes @ 22°C

Tensile Strength, ISO 6922:

Steel (grit blasted)	N/mm ² (psi)	≥5.2 (≥755)
----------------------	----------------------------	----------------

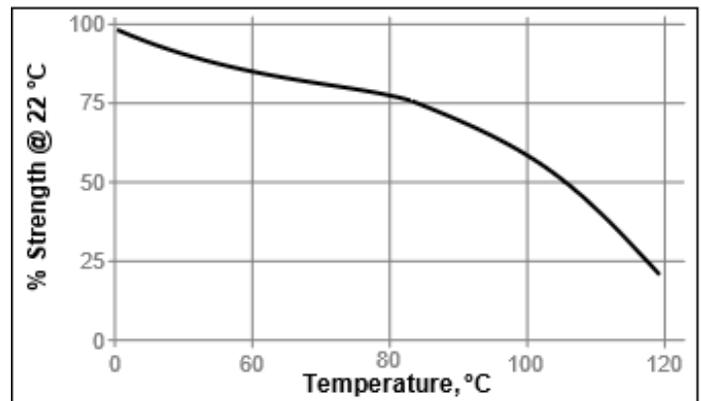
TYPICAL ENVIRONMENTAL RESISTANCE

Cured for 1 week @ 22 °C

Lap shear strength, ISO 4587
Mild steel (grit blasted)

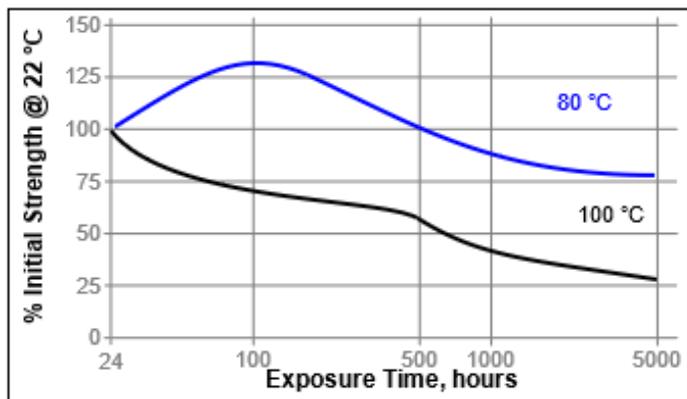
Hot strength

Tested at temperature



Heat aging

Aged at temperature indicated and tested @ 22 °C.



Chemical/solvent resistance

Aged under conditions indicated and tested @ 22°C.

Environment	°C	% of initial strength		
		100 h	500 h	1000 h
Motor oil (MIL-L-46152)	40	100	100	95
Gasoline	22	100	100	100
Isopropanol	22	100	100	100
Heat/humidity 95% RH	40	80	75	65

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).

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal storage: 2°C to 8°C. Storage below 2°C or greater than 8°C can adversely affect product properties.

Material removed from containers may be contaminated during use. Do not return products 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.

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on the specifications of this product.

Approval and certificate

Please contact 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

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.

Material removed from containers may be contaminated during use. Do not return products 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

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, 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 Corporation, or Henkel Canada Corporation, 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