Technical Data Sheet

LOCTITE® DRI 513HV™

Known as LOCTITE® 513HV™ Dri-Seal™
December 2016

PRODUCT DESCRIPTION

LOCTITE® DRI 513HV™ provides the following product characteristics:

Technology	Acrylic
Chemical Type	Acrylic
Appearance	White liquid[LMS]
Components	One component - requires no mixing
Cure	Convection oven air dry
Application	Thread sealing
Product Benefits	• Seals Pipe threads for immediate use • Excellent environmental resistance • High temperature resistance

LOCTITE® DRI 513HV™ is designed for the locking and sealing of plastic and metal pipes and fittings. When dried, it becomes a resilient, tight-clinging, non-curing sealant for tapered or straight threads. LOCTITE® DRI 513HV™ provides positive sealing and resistence to vibrational loosening. The thread-filling ability and prevailing torque characteristics of this product are effective for use on sealing applications, particularly where re-adjustments are required, e.g. rear axle filler plugs, bearing adjuster nuts, pressure gauges and sensors, brake fittings, pipe fittings, and compressor pipe plugs. Other devices that this product is designed for includes; cable connectors, screws for plastic assemblies, adjustment screws, overhead fire sprinklers, shower heads, and door closure hardware. This product is typically used in applications with an operating range of -20 °C to 150 °C and can intermittently reach temperatures up to 177 °C.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.02 to 1.18[LMS]
Flash Point - See SDS	
Viscosity, Brookfield - RVT, 25 °C, mPa·s (cP):	
Spindle 6, speed 10 rpm	16,200 to 44,000[LMS]
pH @ 25 °C	7.0 to 8.0[LMS]
Solids Content, %	54 to 72[LMS]
On Part Life, years	4
(when stored in a cool, dry area)	

TYPICAL CURING INSTRUCTIONS

Production Drying Requirements for North American Customers

Thin film coating requires 15 to 20 minutes at 85°C (185F) with an airflow of not less than 17,000 liter/min (600 cubic feet/min).

NOTE: For smaller, non-production applications and other regions, contact Henkel for assistance.

TYPICAL PROPERTIES OF DRIED MATERIAL

Coating softness

LOCTITE® DRI 513HV™ is compounded to be soft and provide good cold flow sealing properties. This prevents galling and allows a resilient coating for ease of installation onto aluminum and other soft metals, plastics, etc.

Lubricity

LOCTITE® DRI 513HV™ is designed to give consistent control of lubricity. LOCTITE® DRI 513HV™ may affect the K-Value and when precise results are necessary, the user should first test the actual coated parts.

TYPICAL PERFORMANCE OF PRE-APPLIED MATERIAL

Heat Resistance

LOCTITE® DRI 513HV™ sealant, coated on 3/8" malleable iron National Pipe Thread (NPT) fittings were exposed to the following high temperature conditions of 150°C (300F) for 30 days and to 177°C (350F) for 10 days. After the heat aging period, the assemblies were pressure tested for fluid leaks. Test assemblies passed 1035 kPa for one minute.

Chemical/Solvent Resistance

Test performed on 12.7mm malleable iron NPT fittings are immersed in the following automotive test fluids at the specifed temperature for 30 days. After the aging period, the assemblies are tested for fluid leaks. Assemblies passed 1035 kPa for one minute.

		% of initial strength
Environment	**°C**	**Results h**
Motor oil	150	No leakage
Transmission fluid	150	No leakage
Brake fluid	150	No leakage
Gasoline (unleaded)	25	No leakage
Diesel fuel #2	25	No leakage
Water	100	No leakage
Water/glycol 50/50	120	No leakage

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:

LOCTITE® DRI 513HV™ is applied to threaded parts by authorized process centers who have automatic fastener cleaning, feeding, coating, rust proofing and drying equipment. Quantities can be handled promptly with minimum turnaround time. Sample fittings should be sent to the nearest authorized process center where they will coat your parts and return them to you for evaluation. SAMPLE TESTS ARE RECOMMENDED TO OBTAIN DESIRED RESULTS ON YOUR PARTS. Contact the nearest Loctite Sales Representative for the authorized process center nearest to you.

Loctite Material Specification[LMS]

LMS dated January 08, 2004. 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:
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Reference N/A

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