Technical Data Sheet

LOCTITE® DRI 205™

Known as LOCTITE® 205™
June 2015

PRODUCT DESCRIPTION

LOCTITE® DRI 205™ provides the following product characteristics:

Technology	Acrylic
Chemical Type	Methacrylate ester
Appearance (uncured)	Creamy light orange dispersion[LMS]
Viscosity	High
Components	Two components - requires mixing
Cure	Anaerobic
Application	Threadlocking, Sealing

LOCTITE® DRI 205™ is a dry-to-the-touch, preapplied film for threaded fasteners. It remains inert on the fastener until assembly of the threads releases a quick curing resin. The resin fills all the voids in the threads and cures to securely lock and seal the assembly. LOCTITE® DRI 205™ prevents loosening through vibration to provide locking and sealing of threaded assemblies. Typical applications include locking carburetor screws, transmission nuts, head bolts, truck axle bolts and tower bolts and also for sealing transmission bolts and pipe plugs and fittings. This product is typically used in applications with an operating range of -54 °C to +150 °C.

NOTE: LOCTITE® DRI 205™ is not recommended for use on copper or brass surfaces.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield - RVF, 25 °C, mPa·s (cP):
Spindle 5, speed 2 rpm 80,000 to 150,000[LMS]

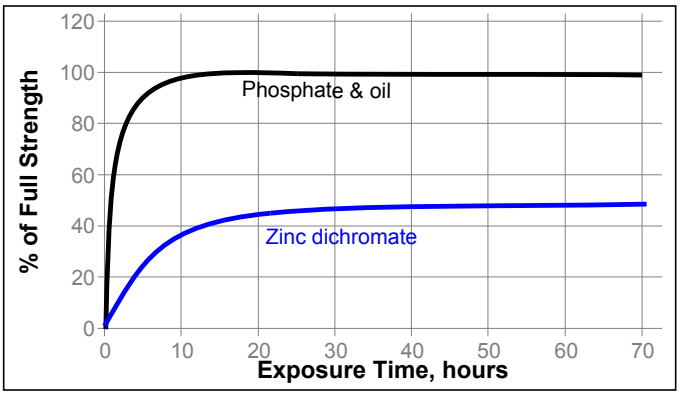
Flash Point - See SDS

TYPICAL CURING PERFORMANCE

On Part Life, years 4

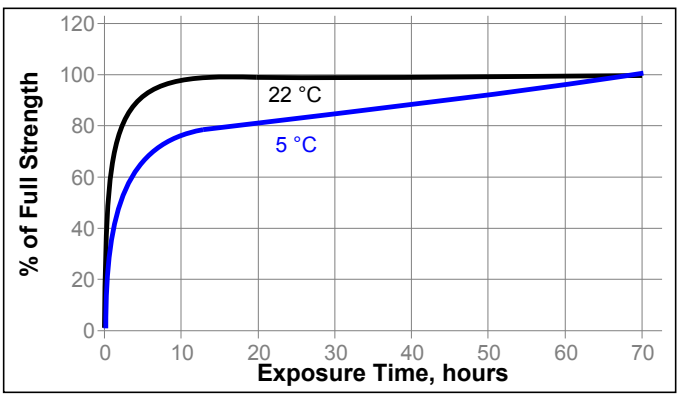
Cure Speed vs. Substrate

The graph below shows the breakaway strength developed with time on 3/8 x 16 phosphate and oil nuts & bolts compared to different materials and tested according to ISO 10964.



Cure Speed vs. Temperature

The graph below shows the breakaway strength developed with time at different temperatures on 3/8 x 16 phosphate and oil nuts & bolts.



TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

After 72 hours @ 22 °C

Breakaway Torque, ISO 10964:

3/8 x 16 phosphate and oil nuts and bolts	N·m	17
	(lb.in.)	(149)

Prevail Torque, ISO 10964:

3/8 x 16 phosphate and oil nuts and bolts	N·m	6
	(lb.in.)	(57)

On - Torque, :

M10 nuts (plain finish) and phosphate and oil bolts	N·m	<2.0[LMS]
	(lb.in.)	(17.7)

Breakaway Torque, :

M10 nuts (plain finish) and phosphate and oil bolts	N·m	≥22[LMS]
	(lb.in.)	(194)

Prevail Torque, :

M10 nuts (plain finish) and phosphate and oil bolts	N·m	≥5.6[LMS]
	(lb.in.)	(49)

TYPICAL ENVIRONMENTAL RESISTANCE

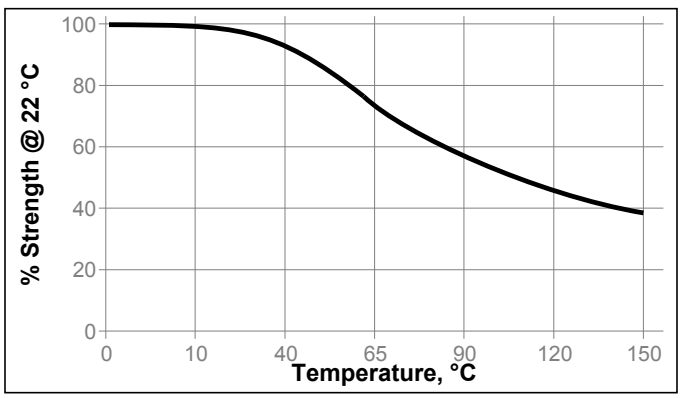
Cured for 72 hours @ 22 °C

Breakaway Torque, ISO 10964:

3/8 x 16 phosphate and oil nuts and bolts

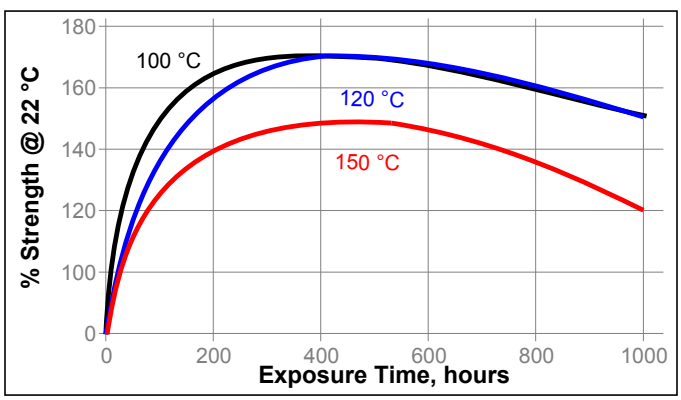
Hot Strength

Tested at temperature



Heat Aging

Heat aged for 2000 hours, tested at temperature



Chemical/Solvent Resistance

Aged under conditions indicated and tested @ 22 °C

		% of initial strength		
Environment	**°C**	**100 h**	**500 h**	**1000 h**
Motor oil	125	132	109	94
Motor oil	87	158	152	142
Unleaded gasoline	22	113	82	77
Brake fluid	22	116	101	93
Ethanol	22	116	75	73
1,1,1 Trichloroethane	22	108	90	84
Water/glycol 50/50	87	158	134	127
ATF	125	125	102	93
Methanol/Unleaded 15/85	25	112	79	74

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).

Where aqueous washing systems are used to clean the surfaces before bonding, it is important to check for compatibility of the washing solution with the adhesive. In some cases these aqueous washes can affect the cure and performance of the adhesive.

This product is not normally recommended for use on plastics (particularly thermoplastic materials where stress cracking of the plastic could result). Users are recommended to confirm compatibility of the product with such substrates.

Directions for use:

LOCTITE® DRI 205™ 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 April 10, 1996. 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:

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.

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Reference 0.1