LOCTITE® 3030™

February 2009

PRODUCT DESCRIPTION

LOCTITE® 3030™ provides the following product characteristics:

Technology	Acrylic
Chemical Type	Acrylic
Appearance (Part A)	Clear yellow liquid[LMS]
Appearance (Part B)	Transparent yellow liquid with visible glass beads, Black particles may be observed, not criteria for batch rejection[LMS]
Components	Two component - requires mixing
Viscosity	Medium, thixotropic
Cure	Two part acrylic
Mix Ratio, by volume - Part A: Part B	10 : 1
Application	Bonding
Specific Benefit	Fast curing

LOCTITE® 3030™ is designed primarily to bond to many low energy substrates such as low and high density polyethylene and polypropylene but can be used as a general purpose adhesive on many other substrates as well. The product contains 0.25mm glass beads for bondline thickness control. The thixotropic nature of LOCTITE® 3030™ reduces the migration of liquid product after application to the substrate.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties:	
Specific Gravity @ 25 °C	1.08
Viscosity, Cone & Plate, mPa·s (cP):	
Cone CP50-2 @ shear rate 3,000 s^{-1}	32 to 80[LMS]
Infrared Spectroscopy	To match standard[LMS]
Flash Point - See MSDS	
Part B Properties:	
Specific Gravity @ 25 °C	1.08
Viscosity, Brookfield - RVT - Small Sample, 25 °C, mPa·s (cP):	
Spindle 16, speed 2.5 rpm	11,000 to 29,000[LMS]
Spindle 16, speed 20 rpm	2,000 to 11,000[LMS]
Flash Point - See MSDS	

TYPICAL CURING PERFORMANCE

This product cures rapidly when the components are dispensed through a LOCTITE® branded static mixer at room temperature.

Fixture Time

Fixture time is defined as the time to develop a shear strength of 0.1 N/mm² .

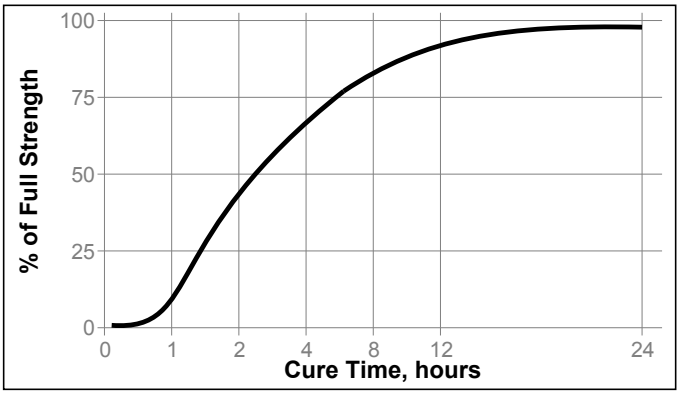
Fixture Time, mixed, minutes:	
Steel	10

Open Time

Open Time, mixed, minutes	3

Strength vs. Time

The graph below shows the bond strength developed with time with a 0.25mm gap and tested according to ISO 13445.



TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties:

Elongation, at break, ISO 527-3, %		76
Tensile Strength, at break, ISO 527-3	N/mm²	6.3
	(psi)	(915)
Tensile Modulus, ISO 527-3	N/mm²	43.4
	(psi)	(6,300)

TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Cured for 24 hours @ 22 °C

Block Shear Strength, ISO 13445:

HDPE	N/mm²	≥6[LMS]
	(psi)	(≥870)
Polypropylene	N/mm²	13.6
	(psi)	(1,970)
LDPE	N/mm²	*4.3
	(psi)	(*630)
ABS	N/mm²	15.4
	(psi)	(2,230)
PVC	N/mm²	7.9
	(psi)	(1,150)
Polycarbonate	N/mm²	7.3
	(psi)	(1,060)
Polybutylene Terephthalate (PBT)	N/mm²	9.3
	(psi)	(1,350)
Epoxyglass	N/mm²	11.3
	(psi)	(1,640)
Acetal	N/mm²	1.4
	(psi)	(200)

* substrate failure

Lap Shear Strength, ISO 4587:

Steel	N/mm² (psi)	4.8 (700)
Aluminum	N/mm² (psi)	4.9 (710)
Stainless steel	N/mm² (psi)	4.5 (650)
Nylon	N/mm² (psi)	1.2 (170)
EPDM	N/mm² (psi)	0.15 (20)
SBR	N/mm² (psi)	0.55 (80)

"T" Peel Strength, ISO 11339:

Aluminum	N/mm (lb/in)	0.55 (3)

Impact Strength, ISO 9653, kJ/m² :

Steel	6

TYPICAL ENVIRONMENTAL RESISTANCE

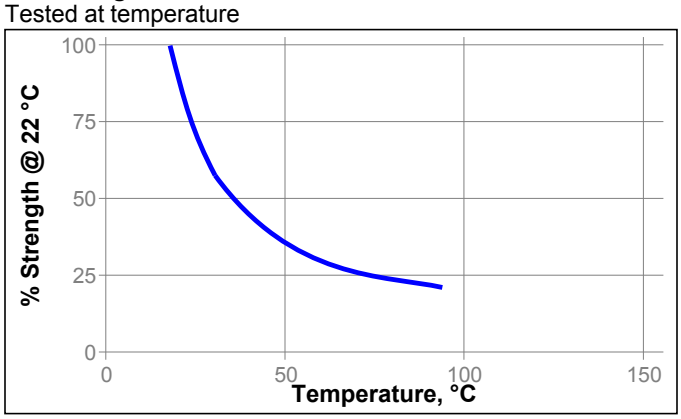
Cured for 24 hours @ 22 °C

Block Shear Strength, ISO 13445:

Polypropylene

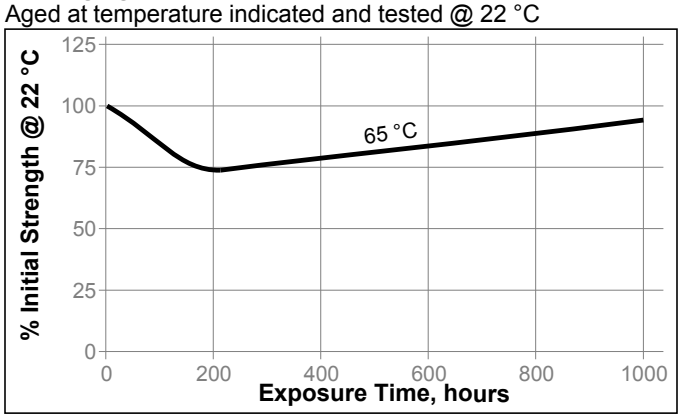
Hot Strength

Tested at temperature



Heat Aging

Aged at temperature indicated and tested @ 22 °C



Chemical/Solvent Resistance

Aged under conditions indicated and tested @ 22°C.

		% of initial strength	
Environment	**°C**	**500 h**	**1000 h**
Humidity, 100% RH	49	75	75
Salt fog, 95% RH	35	80	105
Water immersion	65	60	80
Unleaded gasoline	25	75	20

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 Material Safety Data Sheet (MSDS).

Directions for use:

1. For best performance bond surfaces should be clean and free from grease.
2. place cartridge in LOCTITE® applicator with plunger.
3. Actuate gun to ensure that both adhesive and activator are free flowing.
4. Attach Loctite® static mix nozzle.
5. Discard a small amount of mixed adhesive from mix nozzle prior to dispensing product on actual parts.

Clean-up

1. Uncured material may be cleaned from dispenser components and surfaces with a variety of solvents; including LOCTITE® 7360™, LOCTITE® Equipment Flushing Solvent™, IPA, acetone, MEK, methylene chloride, etc. .
2. Always wash and dry thoroughly prior to re-use of dispenser components.
3. Removal of material that has been mixed should be done quickly as polymerization occurs rapidly.
4. After use, the static mixer may be used in place of the cap.
5. When the product is reused, a new static mixer must be used.
6. Contact your equipment supplier to ensure that any solvents used are compatible with individual components.

Loctite Material Specification[LMS]

LMS dated March 25, 2003 (Part A) and LMS dated May 16, 2003 (Part B). 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 Loctite Quality.

Storage
Store product in the unopened container in a dry location. Material removed from containers may be contaminated during use. Do not return liquid to original container. 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**. Henkel cannot assume responsibility for product which has been contaminated or stored under conditions other than those recommended. 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

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Reference 2.2