

LOCTITE[®] 190017[™]

Known as LOCTITE[®] Explosive Charge Bonder
February 2015

PRODUCT DESCRIPTION

LOCTITE[®] 190017[™] provides the following product characteristics:

Technology	Acrylic
Chemical Type	Anaerobic
Appearance (uncured)	Clear liquid ^{LMS}
Cure	Anaerobic
Application	Bonding

LOCTITE[®] 190017[™] is a flexible, anaerobic adhesive which cures rapidly and through large gaps at room temperature.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.17
Flash Point - See SDS	
Viscosity, Brookfield - RVF, 25 °C, mPa·s (cP):	
Spindle 2, speed 4 rpm	5,000 to 9,000 ^{LMS}

TYPICAL CURING PERFORMANCE

Fixture Time

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

Fixture Time, ISO 4587, hours:

Aluminum:	
0.05 mm gap	0.25 to 0.33
0.5 mm gap	7 to 9
1.0 mm gap	12 to 24
Steel:	
0.05 mm gap	0.58 to 0.67
0.5 mm gap	7 to 9
1.0 mm gap	12 to 24

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties:

Elongation, ISO 527-3, %	130
Shore Hardness, ISO 868, Durometer A	35 to 40

TYPICAL PERFORMANCE OF CURED MATERIAL

Cured for 24 hours @ 22 °C, 0.05 mm gap

Lap Shear Strength, ISO 4587:	
Steel	N/mm ² 2.8 ^{LMS} (psi) (405)
Aluminum	N/mm ² 2.1 ^{LMS} (psi) (305)

Cured for 24 hours @ 22 °C, 0.25 mm gap

Lap Shear Strength, ISO 4587:

Steel	N/mm ² 0.3 ^{LMS} (psi) (45)
Aluminum	N/mm ² 0.7 ^{LMS} (psi) (100)

Cured for 72 hours @ 22 °C

Impact Strength, ISO 9653, ft-lbs/in²:

Steel/Steel:	
0.05 mm gap	7
0.5 mm gap	7
1.0 mm gap	7

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 Material Specification^{LMS}

LMS dated October 09, 1998. 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

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\mu\text{m} / 25.4 = \text{mil}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{N/mm}^2 \times 145 = \text{psi}$
 $\text{MPa} \times 145 = \text{psi}$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

Reference 0.2

Note:

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