Technical Data Sheet

LOCTITE® EA 907™

Known as LOCTITE® Hysol® 907™
August 2015

PRODUCT DESCRIPTION

LOCTITE® EA 907™ provides the following product characteristics:

Technology	Epoxy
Chemical Type	Epoxy
Appearance (Resin)	blue[LMS]
Appearance (Hardener)	white[LMS]
Appearance (Mixture)	Blue to green-blue[LMS]
Components	Two part - Resin & Hardener
Mix Ratio, by weight - Resin : Hardener	1.25 : 1
Mix Ratio, by volume - Resin : Hardener	1 : 1
Cure	Room temperature cure after mixing
Secondary Cure	Heat
Application	Bonding
Specific Benefit	• Easy to mix • Color coded • Offers tolerance to off-ratio mixing

LOCTITE® EA 907™ is a two component paste adhesive suitable for general purpose use. LOCTITE® EA 907™ bonds a variety of materials including metals and plastics. It is also tolerant to poorly prepared surfaces.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Resin:

Specific Gravity @ 25 °C	1.4
Flash Point - See SDS	
Viscosity @ 25°C, mPa·s (cP)	100,000

Hardener:

Specific Gravity @ 25 °C	1.13
Flash Point - See SDS	
Viscosity @ 25°C, mPa·s (cP)	150,000

Mixed:

Specific Gravity @ 25 °C	1.25
Viscosity @ 25°C, mPa·s (cP)	120,000
Pot life @ 25 °C, minutes	≥10[LMS]

TYPICAL PROPERTIES OF CURED MATERIAL

Cured @ 25 °C except where noted

Physical Properties:

Coefficient of Thermal Expansion, ISO 11359-2, K^{-1}		45×10^{-6}
Coefficient of Thermal Conductivity, ISO 8302, W/(m·K)		5×10^{-4}
Shore Hardness, ISO 868, Durometer D:		
Cured for 2 hours @ 60 °C		≥70[LMS]
Elongation, ISO 527-2, %		2.4
Tensile Strength, ISO 527-2	N/mm²	21.4
	(psi)	(3,100)
Tensile Modulus, ISO 527-2	N/mm²	1,690
	(psi)	(245,000)

Electrical Properties:

Dielectric Constant / Dissipation Factor, IEC 60250:	
1 kHz	4.58 / 0.076

TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Cured for 24 hours @ 25 °C

Lap Shear Strength, ISO 4587:

Aluminum (etched):

Tested @ -55 °C	N/mm²	15.9
	(psi)	(2,300)
Tested @ 25 °C	N/mm²	20.7
	(psi)	(3,000)
Tested @ 82 °C	N/mm²	6.9
	(psi)	(1,000)
Tested @ 121 °C	N/mm²	2.8
	(psi)	(400)

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:
Mixing:

1. **When mixing by hand**, combine Part A (Resin) and Part B (Hardener) in the correct ratio and mix thoroughly until the color and consistency are uniform. EPOXI-PATCH® Tube Kits have been designed so that squeezing **EQUAL LENGTH BEADS of Part A & Part B** will give the proper ratio.
2. Mixing the adhesive just prior to use is recommended. The temperature of the separate components prior to mixing is not critical, but they should be close to room

temperature.

3. Heat buildup during and after mixing is normal. To reduce the likelihood of exothermic reaction or excessive heat buildup, mix less than 450 grams at a time. Mixing smaller amounts will minimize heat buildup.
4. **When mixing using a cartidge**, place cartridge in proper dispenser. To begin using a new cartridge, remove the cap and dispense a small amount of adhesive, making sure both parts A & B are extruding. Attach nozzle and dispense approximately 2.5 to 5.0 cm before applying onto the part to be bonded. Partially used cartridges should be stored with the mixing nozzle attached. To reuse, remove and discard the old nozzle, attach the new nozzle, and begin dispensing.

Applying

1. Bonding surfaces should be clean, dry, and free of contamination.
2. Once the adhesive is applied, the bonded parts should be held in contact until the part has developed handling strength (3 to 4 hours @ 25 °C) *note: this can vary with different bond configurations*. It is not necessary to clamp the parts unless movement during cure is likely.

Cure

1. Complete cure is obtained after 24 hours @ 25 °C. LOCTITE® EA 907™ can also be fully cured with heat such as; 1 hour at a maximum temperature of 82 °C.
2. This product can also be cured for 2 hours @ 60°C.

Clean up

1. It is important to clean up excess adhesive from the work area and application equipment before it hardens.
2. Denatured alcohol and many common industrial solvents are suitable for removing uncured adhesive.

Loctite Material Specification[LMS]

LMS dated November 02, 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

Reference 0.0