

LOCTITE EA 4906

July 2016

PRODUCT DESCRIPTION

LOCTITE EA 4906 provides the following product characteristics:

Technology	Epoxy
Product Type	Epoxy adhesive
Cure	Polymerisation
Components	One-component
Application	General assembly
Appearance	Black

Application Areas

LOCTITE EA 4906 is a pourable, oxide-filled, class H (180°C) epoxy encapsulant.

The product has an exceptional resistance to water, heat, freon and other strong solvents. It shows good shock resistance and a low expansion coefficient. LOCTITE EA 4906 is recommended for long term electrical service above 180°C.

TECHNICAL DATA

LOCTITE EA 4906:

Viscosity at 25 °C, Pa.s ASTM D 2392	55 to 65
Specific Gravity, g/cm ³ ASTM D 792	1.5 to 1.7
Cure Time at 120 °C, minutes	150
Cure Time at 155 °C, minutes	30
Cure Time at 170 °C, minutes	12
Gel Time at 120 °C, minutes	60
Gel Time at 155 °C, minutes	8
Gel Time at 170 °C, minutes	4
Shore D hardness at 40 °C, minutes ASTM D 2240	min. 92
Shore D hardness at 120 °C ASTM D 2240	min. 90
Thermal conductivity, W/m.K ASTM D 2214	0.5
Volume resistivity at 25 °C, Ωxcm ASTM D 257	min. 10 ¹⁵
Volume resistivity at 180 °C, Ωxcm ASTM D 257	min. 10 ¹⁰
Service Temperature, °C AIEE	Class H (180°C)

*Exotherm: moderate heat generated during cure. No adverse exotherm effects when cured at 120°C in masses up to about 30 g.

DIRECTIONS FOR USE

Preliminary Statement:

Prior to application it is necessary to read the **Material Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed.

Pretreatment:

The substrate should be clean, dry, free of dust, oil, grease and other contaminants. An improvement of the adhesion can be achieved by grinding or sandblasting the surface.

Application:

For best results when potting small electrical components, preheat part (and mold, if used) above 105°C before pouring epoxy to remove moisture from part and speed up impregnation. If lower viscosity is desired, LOCTITE EA 4906 may be preheated to temperatures up to 55°C.

Recommended cure schedule for minimum shrinkage during cure is 2 h at 120°C. Compound may generate excessive heat if cured rapidly to thicknesses above about 10 mm at temperatures above 120°C. Dielectric strength and other elevated temperature electrical properties can be further improved by postcuring for one h at 170°C or 3 h at 145°C.

Preheat Temp.	Viscosity	Pot Life
55°C	10 Pa.s	2 days
65°C	4 Pa.s	4 hours

Classification:

Please refer to the corresponding **safety data sheets** for details on:

Hazards identification

Transport information

Regulatory information

Storage:

When stored in the original unopened containers at 2-8°C, the shelf life of this product is 7 months from the date of production.

If settling occurs, roll container or stir to resuspend filler before use.

ADDITIONAL INFORMATION

Disclaimer:

The information provided herein, especially recommendations for the usage and the application of our products, is based upon our knowledge and experience. Due to different materials used as well as to varying working conditions beyond our control we strictly recommend to carry out intensive trials to test the suitability of our products with regard to the required processes and applications. We do not accept any liability with regard to the above information or with regard to any verbal recommendation, except for cases where we are liable of gross negligence or false intention.

This datasheet replaces all former versions.

