



Longain EO8212

PRODUCT DESCRIPTION

LONGAIN Product 8212 is low halogen one-component epoxy designed for assembly of electronic components in handheld device market. Particularly suited applications where fast cure and high impact strength applications are required.

PROPERTIES OF UNCURED MATERIAL

Single Component

Chemical Type	Typical Value
Appearance	Epoxy
Viscosity @ 25°C, mPa.s (cP)	Straw Liquid
Brookfield RTV 52# 1rpm	25000 to 35000
Specific Gravity, 25°C	1.11
Flash Point (TCC), °C (°F)	See MSDS
Pot life @ 25 °C, days	5

TYPICAL CURING PERFORMANCE

Cure schedule

30 minutes @ 150 °C

With all curing system, the time required for cure depends on the rate of heating. Cure rate depends on the mass of material to be heated and intimate contact with the heat source. Use suggested cure conditions as general guidelines. Other cure conditions may yield satisfactory results.

The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customer's experience and their application requirements, as well as customer curing equipment.

Isothermal DSC Conversion

100% @ 150 °C, minutes 1.6

TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 30 minutes @ 150 °C

Physical Properties

Property	Typical Value
Tensile strength, ISO 527-3	N/mm ² 14 (psi) 2031
Tensile Modulus, ISO 527-3	N/mm ² 600 (psi) 87,022
Elongation at break, ISO 527-3: %	72
Hardness (Shore D), ASTM D2240	59
Volume Shrinkage, %	2.5
Linear Shrinking	0.8
Glass Transition Temperature (Tg) by DSC °C	28
Water Absorption, ISO 62, %:	0.8
24 hours in water @ 23 °C	

Electrical Properties

Property	Typical Value
Volume resistivity, IEC 60093, $\Omega \cdot \text{cm}$	1.8×10^{14}
Surface resistivity, IEC 60093, Ω	2.8×10^{15}
Dielectric constant/dissipation factor, IEC60250:	
200KHz	2.67/0.03
400KHz	2.63/0.03
600KHz	2.61/0.03
800KHz	2.59/0.03
1MHz	2.58/0.04

Adhesive Properties

Property	Typical Value
Lap Shear Strength, ISO 4587:	
Steel (grit blasted)	N/mm ² 19.0 (psi) (2,756)
Galvanized steel	N/mm ² 18.2 (psi) (2,640)
Nickel steel	N/mm ² 17.0 (psi) (2,466)
Side Impact Strength, STM 812:	
Steel (grit blasted)	14.8KJ/mm ²
Galvanized steel	9.3 KJ/mm ²
Nickel steel	11.9 KJ/mm ²

USE AND APPLICATION

DO NOT USE
**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).

Storage

Store product in cool, dry location, in unopened containers.

Optimal storage: -20°C, Storage great than -20°C can adversely affect product properties.

To prevent contamination of unused product, do not return any material to its original container.