

Electronic Encapsulant

AVAILABLE FROM
NEPEAN ELECTRONICS



NEPEAN Power is a proven leader in the supply and manufacture of quality engineered solutions, products and technologies. Established in 1994, through the commitment of our dedicated team we have become a supplier of choice.

NEPEAN Electronic Encapsulant is a two component, low viscosity silicone rubber for insulative potting and encapsulation in electronic applications. After mixing the two components, the material cures upon exposure to moisture in the air at room temperature. ZS-GF-5299Z is easy to use and provides a long term reliable solution for the encapsulation of flit plugs for use in the mining industry and other encapsulation requirements in many industrial applications.

Applications

- Potting of electronic components and circuits
- Encapsulation of electrical and electronic components
- General potting/encapsulant material of power supplies or other components thermal release

Features

- Conforms to the following standards:
 - AS 1147.1-1989, Part 1
 - AS/NZS 60079.18:2005, Encapsulation 'm'
 - AS/NZS 60079.0:2005, General Requirements
- Non-Flammable catalyst
- Low viscosity allows for good flow and penetration
- Repairable by cutting away and pouring new material
- Protects against dust and dirt, and helps minimise the risk of arcing
- Curable at room temperatures in 24 hours, depending on ambient conditions
- Flexibility of cured material helps absorb cable movement, and contributes to connection integrity
- Retains elastometric properties from -60°C to +224°C continuous
- This product does not produce any byproduct during the curing reaction, complied with the
- RoHS, REACH of EU directive Part A & Part B differing colours ensure a colour change on mixing, which allows confirmation without streaks

Performance Indicators	A	B
Appearance	Grey, Black, White	White
Viscosity (cps, 25°C)	1500-3000	1500-2500
A: B (mixing ratio by weight)	1:1	
Before Curing		
Mixed viscosity (cps)	1500-3000	
Complete curing time (h)	3-5	
Operate time (min)	40-50	
Hardness (Shore A)	40~50	
Thermal Conductivity (W [m.K])	≥0.6	
Dielectric Strength (kV/mm)	≥18	
After Curing		
Dielectric Constant (1.2MHz)	2.4-3.0	
Specific Gravity	1.56±0.02	
Volume Resistivity (Ω.cm)	≥1.0x10 ¹³	
Flammability rating	UL94 V-0	
Coefficient of thermal expansion (ppm/°C)	220	

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Mixing

1. **Safety:** Read the SDS prior to use
2. **Before mixing:** Part A and B should be thoroughly stirred before mixing the two components together.
3. **When mixing:** Maintain a ratio of 1:1 and stir uniformly.
4. **Degassing:** After mixing, we recommend vacuum degassing for 1-3 minutes.
5. **Potting:** Mixed rubber should be potted into application as soon as possible to allow the product to thicken.
6. **Cure:** Room temperature or heat cure. The product will cure in 20 minutes between 80°C~100°C, or 8 hours at room temperature.

Electronic Encapsulant is pre-packaged in containers to achieve the recommended mixing ratio (A:B) of 1:1. The entire contents of the B-Component should be added to the A-Component, packaged in 3kg containers.

Handling and Safety

Wear eye protection when handling uncured rubber as it can irritate the eyes. In case of eye contact, immediately flush eyes well with water and contact a physician. Adequate ventilation must be maintained in the work place at all times. Extended contact with the skin may cause irritation and should be avoided.

Storage

Store in a cool, dark place out of direct sunlight. Keep out of reach of children.

Shelf Life

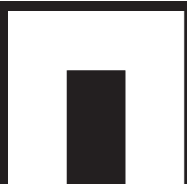
12 months from the date of manufacture

Packaging

Silicone Part A: 3kg Plastic Container
Silicone Part B: 3kg Plastic Container
Mixing Container: 10L Plastic Container

Ordering Information

Part Number	Description
ZS-GF-5299Z	Electronic Encapsulant Part A: 3kg Electronic Encapsulant Part B: 3kg 10L Plastic Mixing Container



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