

Epoxy Potting Compound 149

A two-component condensation material designed for hermetically sealing and insulating electronic, electrical, telecommunication and radio engineering components. Our Epoxy Potting Compound 149 stands out among similar products — its greatest advantages include high mechanical strength, exceptional adhesion to various materials and excellent electrical insulation properties, ensuring reliable protection in demanding conditions. The curing process for metal surfaces with our epoxy encapsulants (149 and 141) requires mixing the encapsulant with a hardener in precise proportions. Versatile and effective, Epoxy Potting Compound 149 is a great choice for industrial production facilities as well as electronics enthusiasts and DIY hobbyists.

Product features:

- ✓ very high viscosity of the mixture before cross-linking,
- ✓ protection against moisture, dust and external factors,
- ✓ easy application and even distribution,
- ✓ dry to the touch after curing,
- ✓ high mechanical strength,
- ✓ excellent electrical insulation properties,
- ✓ high hardness,
- ✓ safe formula for delicate electronic surfaces.

Applications:

- ✓ coils, transformers, capacitors, resistors,
- ✓ cable terminal connections,
- ✓ transformers, telecommunication and radio equipment,
- ✓ creation of insulating and structural coatings in electronic devices.

Physicochemical properties (A & B)

Appearance	Yellow liquid (A), Colorless liquid (B)
Density at 25°C	1.16 g/cm ³ (A), ~0.98 g/cm ³ (B)
Viscosity at 25°C	20 000-30 000 cP (A)
Amine number	Min. 1100 mg KOH/g (B)
Epoxy number	0.480-0.510 mol/100g (A)
Shelf life	12 months

Mixture properties 100:12 (A+B)

Density at 25°C	1.16 g/cm ³
Gel time at 25°C	~33 minutes

Properties of the mixture after 7 days of curing

Consistency	Yellow, hard solid
Shore hardness after curing	97 [A]
Thermal resistance	100°C
Deflection temperature by martens method (PN-90/C-89025:1990)	90-110°C
Hardness by ball indentation method (PN-EN ISO 2039-1:2002)	100-130 MPa
Tensile strength (PN-EN ISO 527-1:1998/527-2:1998)	60-80 MPa
Compressive strength (PN-EN ISO 604:2006)	100-120 MPa
Flexural strength (PN-EN ISO 178:2006)	100-140 MPa

Compatibility:

Epoxy Potting Compound 149 is compatible with most materials commonly used in electronics, such as metals, glass and ceramics. It should not be used with polystyrene (Styrofoam), which may become damaged upon contact with the product.

Application method	
Encapsulation	Yes

Usage instructions:

Restricted to professional users. Read safety data sheet carefully prior to use.

Before beginning the application, the surface must be thoroughly cleaned of dust, grease and other contaminants, then degreased. For metal surfaces, chemical etching is recommended to improve the adhesion of the encapsulant. The components of Epoxy Potting Compound 149 should be mixed in a ratio of **100:12** (100 parts by weight of resin to 12 parts by weight of hardener) until a uniform consistency is achieved. The mixing process should be carried out carefully at room temperature. The kits are pre-measured in the correct proportions: 100g (100g A + 12g B), 1kg (1kg A + 120g B), which facilitates easy combination. The prepared mixture should be applied to the components, ensuring even coverage of all parts requiring protection.

Curing can be carried out using one of two methods. In the single-stage method, leave the encapsulated components at room temperature for 7 days to achieve full mechanical strength. Alternatively, the two-stage method involves allowing the material to cure for 12 hours at room temperature, followed by an additional 6 hours at 80°C. Once the process is complete, the compound forms a light-yellow, durable coating that provides excellent electrical insulation and mechanical protection.

Avoid contact between the encapsulant and polystyrene, as the product's components may damage this material. The product is safe and effective for use on other surfaces.

All equipment used for applying the epoxy coating should be cleaned regularly with a solvent — such as acetone — to prevent the epoxy compound from curing on the tools.

Package

Metal container

100 g (ART.AGT-224) - 4 pcs.*
1 kg (ART.AGT-259) - 1 pc.*

*Quantity of pcs. in a bulk package.

Storage:

The resin should be stored in its original, tightly sealed containers, in well-ventilated, dry storage areas at a temperature not exceeding 25°C. The product should not be exposed to direct sunlight. It may also be stored in acid-resistant stainless steel tanks equipped with heating coils.

Technical support:

AG TermoPasty provides technical support, answering questions about the technical specifications and applications of our products. Please contact us via email at info@termopasty.pl.

Note:

The data presented in this document reflects our current level of knowledge and describes the typical properties and applications of the product. However, the responsibility for determining its suitability for specific applications lies with the user. AG TermoPasty is not liable for the results of product use, as the conditions of application fall beyond our control.



Chemical resistance of the cured mixture (after 7 days of seasoning, 1-month exposure)	
Aceton	Lack of resistance
Ammonia 10%	Very good
Gasoline	Very good
Ethanol 45%	Very good
Ethanol 96%	Very good
Ethyl acetate	Lack of resistance
Xylene	Very good
Hydrogen peroxide 3%	Very good
Toluene	Very good
Table salt 20%	Very good
Sodium carbonate 10%	Very good
Nitric acid 10%	Very good
Citric acid 10%	Very good
Phosphoric acid 10%	Very good
Acetic acid 5%	Very good
Sulfuric acid 20%	Very good
Hydrochloric acid 10%	Very good
Concentrated hydrochloric acid	Very good
Sodium hydroxide 10%	Very good
Sodium hydroxide 20%	Very good
Sodium hydroxide 30%	Very good
Tap water	Very good

