Epoxy Potting Compound 141

A two-component condensation material designed for hermetically sealing and insulating electronic, telecommunication and radio engineering components. Transformers, capacitors, cable connectors and other parts that come into contact with our Epoxy Potting Compound 141 can rely on dependable protection even in the most demanding conditions — thanks to its exceptional adhesion (to various materials), outstanding electrical insulation properties and high durability.

Product features:

- protects against moisture, dust and external factors,
- excellent insulating properties,
- dry to the touch after curing,
- high hardness after cross-linking,
- easy application and even distribution,
- safe formula for delicate electronic surfaces.

Applications:

- coils, transformers, capacitors, resistors,
- cable terminal connections,
- electrical devices used as an insulating structural material.

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	900-1500 cP (A)
Amine number	Min. 1100 mg KOH/g (B)
Epoxy number	Min. 0.410 mol/100g (A)
Shelf life	12 months
Mixture properties 100:10 (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	95 [A]
Thermal resistance	50°C
Deflection temperature by martens method (PN-90/C-89025:1990)	50-55°C
Transverse resistivity at 20±5°C and 65±5% humidity (ASTM D257)	1*10^{15} Ω x cm
Surface resistivity at 20±5°C and 65±5% humidity (ASTM D257)	1*10^{15} p_s Ω
Dielectric strength (PN-EN 60243:2002)	20-25 kV/mm
Hardness by ball indentation method (PN-EN ISO 2039-1:2002)	100-120 MPa
Tensile strength (PN-EN ISO 527-1:1998/527-2:1998)	40-60 MPa
Compressive strength (PN-EN ISO 604:2006)	70-90 MPa
Flexural strength (PN-EN ISO 178:2006)	80-100 MPa
Adhesive joint strength under compression (PN-EN 1465:2003)	Min. 10 MPa
Adhesive joint strength, flexural shear method (PN-ISO 15108:2002)	Min. 2.5 MPa

Compatibility:

Epoxy Potting Compound 141 is compatible with most materials commonly used in electronics, such as metals, glass and ceramics. However, it should not be used with polystyrene (Styroflex), 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 application, the surface must be thoroughly cleaned of dust, grease and other contaminants, then degreased. For metal surfaces, chemical etching is recommended to enhance adhesion of the encapsulant. The components of Epoxy Potting Compound 141 should be mixed at a ratio of **100:10** (100 parts by weight of encapsulant to 10 parts by weight of hardener) until a uniform consistency is achieved. The mixing process should be carried out carefully at room temperature. The kit components are pre-measured in the correct proportions: 100 g (100 g A + 10 g B) and 1 kg (1 kg A + 100 g 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 a period of 7 days to achieve full strength. Alternatively, the two-stage method involves allowing the material to rest for 12 hours at room temperature, followed by curing for 6 hours at 80°C. After the process is complete, the mass 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-223) - 4 pcs.* 1 kg (ART.AGT-258) - 1 pc.*

*Quantity of pcs. in a bulk package.

Storage:

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

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	Moderate
Ammonia 10%	Very good
Gasoline	Very good
Ethanol 45%	Very good
Ethanol 96%	Moderate
Xylene	Moderate
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%	Moderate
Sulfuric acid 20%	Very good
Hydrochloric acid 10%	Very good
Concentrated hydrochloric acid	Moderate
Sodium hydroxide 10%	Very good
Sodium hydroxide 20%	Very good
Sodium hydroxide 30%	Very good
Tap water	Very good