



COTOCABLE

TECHNICAL SHEET

DIAPOL 509 FG SELF-EXTINGUISHING

FLEXIBLE PU RESIN

THERMAL CLASS: B (130°C)

AIR POLYMERIZATION

- ✓ Solvent-free resin
 - ✓ Dimensional stability
 - ✓ Chemically non-aggressive
 - ✓ Self-extinguishing UL-94 V0
 - ✓ Low water absorption
 - ✓ Vibration damping
 - ✓ Low exothermic reaction
 - ✓ Good thermal conductivity
-

FIELD OF APPLICATION

Two-component polyurethane casting resin for multiple electrical and electronic applications (e.g., transformers, reactors, starters, capacitors, printed circuits, electromagnets, etc.) that are sensitive to sudden pressure changes or vibrations, and where fire protection is required.

INSTRUCTIONS FOR USE

The resin contains mineral fillers that must be carefully homogenized before use to avoid sedimentation.

Subsequently, the resin can be mixed with its catalyst at room temperature, according to the 100/16 weight ratio.

It is recommended to preheat the resin to approximately 50°C.

The use of automatic mixing-dosing machines facilitates product handling.

If demolding of the polymerized resin is required, our release agent should be applied to the mold.

For encapsulated parts that must exhibit maximum electrical properties, we recommend performing the casting under vacuum.



COTOCABLE

TECHNICAL SHEET

PROPERTY	DIAPOL 509 FG AUT	CATALYST 500	MIXTURE 100/16
Viscosity at 25°C (mPa·s)	13000 ± 3000	200 ± 50	8000 ± 100
Density at 20°C (g/cm ³)	1.56 ± 0.05	1.23 ± 0.02	1.51 ± 0.05
Pot Life at 25°C (min)	—	—	20
Minimum polymerization	—	—	24 h at room temperature, or 6 h at 60°C
Shore Hardness	—	—	80-90 A / 50-60 D
Tensile strength (MPa)	—	—	15-25
Elongation at break (%)	—	—	10-20
Water absorption 24h, 20°C (% weight)	—	—	0.2-0.3
Dielectric strength, 50Hz, 20°C (KV/mm)	—	—	15
Surface resistivity (Ohm)	—	—	3·10 ¹⁵
Specific resistivity (Ohm·cm)	—	—	3·10 ¹³
Dissipation factor tg, 50Hz, 20°C	—	—	0.04
Dielectric constant, 50Hz, 20°C	—	—	4.2
Thermal deformation resistance Pt. Martens (°C)	—	—	20
Thermal conductivity (W/mK)	—	—	0.8-0.9
Dielectric RTI	—	—	130°C
Self-extinguishing	—	—	V0 according to UL-94 standard, UL vertical (6mm test specimen)

SUPPLY FORM

In metal drums of 1, 5, 25, 140, 300 kg, and containers of 1000 kg.

It is recommended to use the product within 18 months from its manufacturing date.

Store in a dry environment, at a temperature between 5°C and 30°C, and keep tightly closed in its original packaging.