



TECHNICAL DATA SHEET

ENGLISH

RS 199-1402 Epoxy Resin

RS 199-1402 is a flame retardant, general purpose, two part potting and encapsulating compound. The system utilises a hardener free of DDM or other aromatic amines. The flame retardant technology used is of a 'clean' type leading to relatively low toxicity fumes and low smoke emission.

- Excellent electrical properties
- Flame retardant; meets UL94 V-0
- Excellent adhesion to a wide variety of substrates
- Low shrinkage and exotherm

Approvals **RoHS-2 Compliant (2011/65/EU):** **Yes**

Typical Properties

Liquid Properties:	Density Part A - Resin (g/ml)	1.83
	Density Part B - Hardener (g/ml)	0.92
	Part A Viscosity (mPa s @ 23°C)	150000
	Part B Viscosity (mPa s @ 23°C)	200
	Mixed System Viscosity (mPa s @ 23°C)	9000
	Mix Ratio (Weight)	10.97:1
	Mix Ratio (Volume)	5.54:1
	Usable Life (20°C)	60 mins
	Gel Time (23°C)	150 mins
	Cure Time (23°C)	24 hours
Cure Time (100 °C)	20 minutes	
Storage Conditions	Dry Conditions: Above 15°C, Below 30°C	
Cured System:	Thermal Conductivity (W/m.K)	0.45
	Cured Density (g/ml)	1.69
	Temperature Range (°C)	-40 to +120 (+140 (Short Term))
	Dielectric Strength (kV/mm)	10
	Volume Resistivity (ohm-cm)	10 ¹⁴
	Shore Hardness	D85
	Colour (Mixed System)	Black
	Flame Retardancy	Meets UL94 V-0
	Tensile Strength (MPa)	60
	Deflection Temperature (°C)	50
	Coefficient of Expansion (ppm/°C)	40
	Loss Tangent @ 50 Hz	0.04
	Permittivity @ 50 Hz	4.00
Comparative Tracking Index	>850 Volts	



Packaging

500g resin Pack

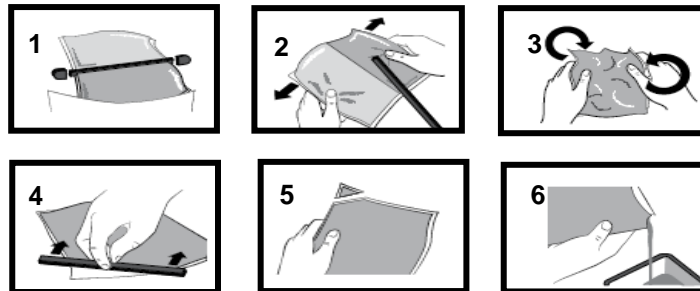
Order Code

RS 199-1402

Mixing Procedures

Resin Packs

When in Resin pack form, the resin and hardener are mixed by removing the clip and moving the contents around inside the pack until thoroughly mixed. To remove the clip, remove both end caps, grip each end of the pack and pull apart gently. By using the removed clip, take special care to push unmixed material from the corners of the pack. Mixing normally takes from two to four minutes depending on the skill of the operator and the size of the pack. Both the resin and hardener are evacuated prior to packing so the system is ready for use immediately after mixing. The corner may be cut from the pack so that it may be used as a simple dispenser.



Additional Information

- Curing:** Do not heat cure large volumes immediately. Allow these to gel at room temperature and post-cure at high temperature if required (refer to liquid properties for details). Small volumes (250ml) may be heat cured immediately.
- Storage:** When storing under very cold conditions, the hardener may crystallise. If this occurs, simply warm (40°C) the container gently until all crystals have re-melted.
- Health & Safety:** Always refer to the Health & Safety data sheet before use.