

A FAST SETTING, COLD POUR ENCAPSULATING RESIN

FLEXRES 35 is a tough, flexible polyurethane resin system characterised by a low exotherm, low volume shrinkage and good penetration, elasticity and resistance to tracking. Applications include the sealing of cable joints, jointing of bus-bars and potting transformers and electronic components. The system is solvent free and can be mixed and cured at room temperature.

Neither component presents any unusual health risk if handled correctly and in adequately ventilated work areas. However, our Product Safety Data should always be referred to before use.

Properties of Component	Resin	Hardener
Type of compound	Hydroxylated polyester	Modified aromatic isocyanate
Appearance	Green opaque liquid	Amber liquid
Density at 20°C	0.94 g/ml	1.11 g/ml
Viscosity at 20°C	5000 - 6000 mPas	200 - 300 mPas
Flash Point	> 200°C	> 200°C
Storage	12 months Store in closed containers at below 35°C away from direct sunlight	12 months Store in closed containers at below 35°C away from direct sunlight.

Mixing: Mix component B thoroughly before combining with Part A. Ensure both components are fully mixed together before pouring contents into the joint or component to be encapsulated.

Properties Mix	
Ratio	100 Resin : 34 Hardener by weight
Pour time (time to 500p @ 20°C)	Approximately 30-40 minutes
Gel/Set time	45 - 55 minutes
Cure time	24 hours at 20°C or 2-4 hours at room temperature plus a further 2-4 hours at 80°C

Technical Information

Properties of Cured Resin	Specification Conditions	Typical Results
Density	At 20°C	0.98 g/ml
Shrinkage	By volume	Ca. 4%
Shore hardness	A	30-35A ⁰
Water absorption	40°C, 40 days	< 0.5%
Dielectric strength	ASTM D-149	550 V/ mil
Volume resistivity	ASTM D-357	2 x 10 ¹⁴ Ω.cm @ 20°C
Surface resistivity	ASTM D-357	> 1 x 10 ¹⁷ ohm

PRODUCT SAFETY DATA

	Resin Component (Red)	Hardener Component (Amber)
Transport & Storage	Store in airtight closed containers in cool, dry place	Store in airtight closed containers in cool dry place.
Incompatible Substances	None under normal conditions	Will react with water, alcohols, amines, acids, alkalis.
Dangerous Decomposition Products	None under normal conditions.	None under normal conditions.
Dangerous Reactions	None under normal conditions.	None under normal conditions.
Personal Safety Measures	Wear suitable protective clothing, eye/face protector.	Wear suitable protective clothing, gloves, eye/face protector.
General Safety Measures	Take care to avoid spills and splashes.	Take care to avoid spills and splashes. Use only in ventilated areas.
In case of Leaks or Spills Disposal	Absorb with earth or sand. Dispose according to local and national regulations. Component B is environmentally friendly.	Ensure good ventilation. If in doubt, wear a respirator. Absorb with earth or sand dampened with water. Leave product to react before disposing according to local and national regulations.
Fire & Explosion Protection	Flash point: 200°C Extinguish with Foam, CO ₂ , Dry Powder.	Flash point: 200°C. Spontaneous ignition temperature: 400°C. Extinguish with Foam, CO ₂ , Dry Powder. Respiratory protection must be used as toxic fumes will be evolved. Inform Fire Officers of isocyanates.
Toxicological Data	Presents no unusual health risk under normal conditions of use. Not subject to any hazard classification.	Oral LD ₅₀ (rat) 5000 mg/kg. Long term exposure limit (8hrTWA) 0.02mg –NCO/m ³ . Short term exposure limit (10minTWA) –NCO/m ³ . Note: Sensitised persons may suffer severe asthmatic attack with even minute concentrations.
Emergency & First Aid Measures	EYE CONTACT: Flush with copious amounts of water. If irritation, seek medical advice.	EYE CONTACT: Rinse immediately with plenty of water and seek medical advice. SKIN CONTACT: Wash immediately with a recognised skin cleaner or soap and water.



PACKAGING

20L kit

Resin: 2 x 18 Kgs;

Hardener: 2 x 3 Kgs.

2L kit

Resin: 1 x 1.46 Kgs;

Hardener: 1 x 0.44gs.

1 Kg Pouch Packs

Supplied in kits using a divided bag.

Remove the divider, massage the components for 2-3 minutes to mix and also use a ruler or similar to scrape the bag seam, cut a corner of the bag and pour out mixed contents.



STORAGE AND HANDLING PRECAUTIONS

ALL CHEMICALS MUST BE USED BY TRAINED PERSONNEL.

Kits have a nominal storage life of upto 12 months at a recommended temperature of 18-25°C. Keep out of direct sunlight.

DISPOSAL: Replace the lids tightly and then dispose according to local and national regulations.



HEALTH AND SAFETY ADVICE

Refer to Polymer Group Safety Data Sheets for individual products. Also refer to the *Approved Code of Practice for the Safe Use of Isocyanates*.

This kit is classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

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