POLYMER GROUP LTD
(ISO 9001)
SOLUTIONS FOR EXTREME ENVIRONMENTS

product data sheet

# ENDURAPACK EP221

## LOW VISCOSITY COLD POUR ENCAPSULATING RESIN

**ENDURAPACK EP221** is a cold pour and cold curing, two component epoxy system, exhibiting low shrinkage and good penetration. Applications include the sealing of cable joints, and potting and encapsulation of electrical and electronic componentry. Both resin and hardener are 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 the Components | Resin | Hardener |
|---|---|---|
| Type of Compound | Solvent free modified epoxy | Amine |
| Appearance | Clear straw coloured liquid | Amber liquid |
| Density at 23 °C | 1.12 g/ml | 1.05 g/ml |
| Viscosity at 23 °C | 900 - 1300 mPas | 100 - 250 mPas |
| Flash Point | > 200 °C | > 200 °C |
| Storage | 24 months<br>Store in closed containers at below 25 °C away from direct sunlight. | 24 months<br>Store in closed containers at below 25 °C away from direct sunlight. |

**MIX:** The resin and hardener must be mixed at room temperature for at least 3 minutes using a wide stirrer to avoid air entrapment.

| Properties of the Mix | |
|---|---|
| Ratio | 100 Resin : 44 Hardener by weight<br>100 Resin : 50 Hardener by volume |
| Pour time at 20 °C | Approximately 30 minutes |
| Cure time | 24 hours at 20 °C or<br>2 - 4 hours at room temperature plus<br>a further 2 - 4 hours at 80 °C |

## TECHNICAL INFORMATION

| Typical Properties of the Cured System | Test Measurements |
|---|---|
| Density | 1.12 g/ml |
| Shrinkage | ca. 2% by volume |
| Shore hardness | 80 Shore D |
| Tensile strength | 55 mPa |
| Water absorption | < 0.5% (40 °C, 40 days) |
| Dielectric strength (DIN 53481) | 17 - 19 kV/mm |
| Volume resistivity (DIN 53482) | $2 \times 10^{15}$ ohm-cm |
| Dielectric constant (DIN 53483) | 3.6 @ 50HZ, 25 °C |

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