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TRANSPARENT CASTING EPOXY EC1150 WITH HARDENER W1150

DESCRIPTION:

Two component epoxy system. Colourless and transparent. The system is based on an unfilled resin with low viscosity and an amine hardener. Good UV resistance. Prolonged exposure to UV nevertheless causes a slight yellowing of the material. System proposed for indoor applications.

APPLICATION:

Transparent mass casting material with long curing time.

PROCESSING:

Manual casting. Vacuum casting. Curing at room temperature. The hardener can be used in variable mixing ratios according to the desired hardness:

W 1150 - 40 parts: Low modulus of elasticity, rigid system - Shore D 80

W 1150 - 90 parts: Flexible system - Shore A 70

SYSTEM SPECIFICATIONS:

Resin EC 1150

✓ Viscosity at 25°C	500-700 mPas
✓ Colour	very light blue
✓ Density at 25°C	1.10-1.15 g/ml

Harder W 1150

✓ Viscosity at 25°C	30-60 mPas
✓ Colour	Colourless
✓ Density at 25°C	0.96-1.00 g/ml

CHARACTERISTICS OF THE TYPICAL SYSTEM:

Processing data:

✓ Mixing ratio by weight	100:40
✓ Potlife at 25°C (80mm; 500ml)	6-7 h
✓ Exothermic peak at 25°C (80mm; 500ml)	50-60°C
✓ Initial viscosity of the mixture at 25°C	150-250 mPas
✓ Gelling time at 25°C (15ml; 6mm)	46-50 u
✓ Formation time at 25°C (15ml; 6mm)	70-74 u

TYPICALLY CURED SYSTEM PROPERTIES:

Properties determined on cured samples: 24 h KT (room temperature) + 15 h 60°C

✓ Colour	colourless
✓ Machinability	excellent
✓ Density at 25°C	1.08-1.12 g/ml
✓ Hardness at 25°C	76-80 shore D/15
✓ Glass transition (Tg)	47-53°C
✓ Water absorption (24h KT)	0.20-0.25%
✓ Water absorption (2h 100°C)	1.05-1.25%
✓ Bending strength	55-62 MN/m ²
✓ Maximum tension	3.5-5.5 %
✓ Stress to fracture	> 15 %
✓ Bending elastic mode	1,900-2,300 MN/m ²
✓ Tensile strength	40-46 MN/m ²
✓ Elongation to fracture	18-25 %
✓ Compressive strength	45-55 MN/m ²



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INSTRUCTIONS:

Add the correct amount of hardener to the resin, mix carefully. Avoid air inclusion. For some applications it may be useful to preheat the components and/or to carry out a de-aeration step under vacuum of the mixture before pouring.

CURING / POST-TREATMENT:

For a curing system at room temperature, the post-curing ensures a fast stabilisation of the material and the achievement of the best electrical and mechanical properties. During the curing process it is advisable to avoid thermal variations higher than 10°C/hr.

BEWARE:

Epoxy resins and their hardeners can be stored for one year in the original sealed containers in a cool, dry place. The hardeners are moisture sensitive, therefore it is good practice to close the container immediately after each use.

TREATMENT PRECAUTIONS:

Consult the data sheet and observe the regulations on industrial health and waste disposal.