EURORESINS
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Product Data Sheet

ESI Resin GP Fast OT

Euroresins Standard Industrial Resin

Chemical/physical nature

ESI Resin GP Fast OT, pre-acc is an unsaturated polyester resin based on orthophthalic acid and standard glycols, dissolved in styrene. ESI Resin HLU/SU Fast Thix, pre-acc is pre-accelerated and contains a thixotropic agent. ESI Resin HLU/SU Fast Thix, pre-acc has a medium reactivity and a low viscosity.

Major applications

ESI Resin GP Fast OT is well suited for hand lay-up and spray techniques. It readily impregnates the reinforcing materials during lay-up and does not run off inclined laminates. ESI Resin GP Fast OT is especially suitable for the production of thick laminates (> 5 mm) and for parts, which require curing with minimum heat generation. On account of its reactivity and curing behaviour it is particularly suitable for the production of laminates almost free of internal stress. Thick laminates cure quickly without getting hot.

Product specifications upon delivery

Property	Range	Unit
Appearance	Hazy	-
Viscosity, Physica, 100 s-1, 23°C	300-800	m.Pas
Viscosity, Physica, 250 s-1, 23°C	200-400	m.Pas
Solids content, IR	53-65	%
Gel time from 25 to 35°C	15-30	Min

Remarks

Reactivity determined with 1.5 Curox M-302 (United Initiators) added to 100 g resin.

Properties of the resin (typical values)

Property	Value	Unit
Density, 20°C	Appr.	Kg/m³
Flash point	Appr. 33	°C
Stability, no init., dark, 25°C	6	Mon

Properties of cast unfilled resin (typical values)

Property	Value	Unit
Tensile strength	70	MPa
Tensile E-modulus	3.7	GPA
Elongation at break	2	%
Flexural strength	110	MPA
Flexural E-modulus	3.7	GPA
Elongation in flex	2.6	%
Impact res. - unnotched sp.	8	Kj/m²
Heat deflection temp. (HDT)	63	°C
Glass transition temp. (Tg)	93	°C

Curing conditions

Mechanical properties determined on resin not containing thixotropic agent. Cured with 1 ml Curox M-302 (United Initiators) and 0.2 ml Co-oct. solution (1% Co in styrene) added to 100 g resin. Cured 24 h at room temperature and 24 h at 80°C.

Processing

ESI Resin GP Fast OT normally exhibits tack-free cure. Nevertheless, the surface may not be cured wholly. To ensure complete cure to the surface exposed to air, suitable additives (e.g. paraffin solution) should be added. Post-curing at elevated temperatures (e.g. 80 °C) for several hours may further optimize final state of cure.

Guidelines before use

The resin should be conditioned at a well-defined, application dependant temperature (usually 15 °C minimum for MEKP/Co cure). Stir the resin thoroughly before use.

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