ULTRATEC™ WXF LAMINATING 75

Technical Datasheet

PRODUCT CODE: C200009

These resins are thixotropic, pre-promoted products available in unwaxed and LSE form which are specifically designed for high performance Marine and Transport applications using hand lay-up and spray application. These resins have rapid glass fibre wetting properties, excellent sprayability and reduced tendency towards shrinkage problems such as pre-release while giving fast cure performance and maintaining a relatively wide green time, low exotherm and low colour in thick sections. The LSE versions of these products contain a combination of additives which improve the working environment during and after application by substantially reducing styrene evaporation, while providing excellent interlaminar adhesion characteristics after delayed lay-up.

VARIANTS

PRODUCT	DESCRIPTION
C200003	ULTRATEC ™ LAMINATING RESIN 30'
C200004	ULTRATEC ™ LSE LAMINATING RESIN 30'
C200005	ULTRATEC ™ LAMINATING RESIN 45'
C200006	ULTRATEC ™ LSE LAMINATING RESIN 45'
C200007	ULTRATEC ™ LAMINATING RESIN 60'
C200008	ULTRATEC ™ LSE LAMINATING RESIN 60'
C200009	ULTRATEC ™ LAMINATING RESIN 75'
C200010	ULTRATEC ™ LSE LAMINATING RESIN 75'
C200011	ULTRATEC ™ LAMINATING RESIN 90'
C200012	ULTRATEC ™ LSE LAMINATING RESIN 90'

Gel times indicated were determined for 100 gram resin mass, at 25° C, using 1% v/w MEKP Curox NR20

PROPERTIES

Contain ingredients which reduce styrene emission during application and give the cured laminate a tack-free surface. Low styrene emission resins alone will not enable the user to comply with the recommended atmospheric styrene levels, but with appropriate ventilation, these resins may assist in reducing the level of styrene in the workshop to which workers are exposed.

When a laminate is built up in stages with intermediate curing, each operation should be finished with a normal resin/glass fibre ratio. Excellent interlaminar adhesion properties have been demonstrated with ULTRATEC™, following delays between lay-ups of up to 7 days. However, since conditions vary from workshop to workshop, the intervals between successive laminating operations should not exceed 48 hours unless the surface is abraded, (to ensure optimum secondary bonding). Any areas with an excess of resin should be abraded in any case if further laminates are to be applied.

TYPICAL LIQUID RESIN PROPERTIES

PROPERTY	TYPICAL VALUE
Appearance	Opaque Blue, Clean
Brookfield LVT2/12 Viscosity @25°C	1600 - 2000cP
Cone and Plate viscosity @23°C	210 - 250cP
Density	1.10 g/m^3
Flash Point (Setaflash)	31°C
Volatile Content, %	40-44
Styrene Emission, g/m² (LSE Versions only)	<20
Stability without initiator	6 months

Typical values: Based on materials tested in our laboratories, but varies from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

TYPICAL CAST UNFILLED RESIN PROPERTIES

Test	Result	Test Method
Barcol Hardness (GYZ 934-1)	40+	EN 59
Density	1.19 g/cm^3	ISO R1183
Volume Shrinkage	7%	ISO 3521
Tensile strength, MPa	60	ISO R527
Flexural strength, MPa	100	ISO 178
Flexural modulus, GPa	4	ISO 178
Elongation at break %	2	ISO R527
Heat deflection temperature (1.8MPa), °C	65	ISO 75
Water absorption: One day, (mg) Seven days, (mg)	 15 22	 ISO 62 ISO 180

* Cast resin was prepared as laid down in BS 3532 using 1% MEKP. Cured at room temperature for sixteen hours then post cured for two hours at 80°C followed by two hours at 100°C.

STORAGE AND HANDLING

To ensure maximum stability and maintain optimum resin handling properties, polyester resins should be stored in closed containers, away from heat sources and sunlight. The resin should be stored away from all sources of ignition. Stored resin quantities should be kept to a reasonable minimum and used on a first in/first out stock rotation basis. Prolonged storage, or unfavourable storing conditions, may cause separation, therefore agitation of the resin before use is recommended.

STANDARD PACKAGING

Mild steel drums (225kg)

Always refer to the MSDS before use.