

### PRODUCT CODE: C200333

Polyplex LSE Resin is a medium reactivity, rigid ortho-phthalic polyester resin with excellent application properties. The resin contains a combination of additives which improve the working environment during and after application by substantially reducing styrene evaporation, while providing excellent inter-laminar adhesion characteristics after delayed lay-up. Polyplex LSE Resin is thixotropic and pre-promoted and is designed for hand lay-up and spray-up application. The resin contains a barrier additive which gives the cured laminate a tack-free surface.

### FEATURES

- Medium gel and positive cure characteristics.
- Low viscosity under high shear with high thixotropy.
- Colour change mechanism.
- Styrene emission (60 minute value) less than 20 grams per square meter when tested to British Plastics Federation method 302/L.
- Excellent secondary bonding following delayed lay-up.

### BENEFITS

- Suitable for general laminating
- Excellent spray-ability. Rapid glass wet-out with minimal drainage on inclined surfaces.
- Indicates presence of initiator.
- Better Workshop conditions as styrene emission from static laminates significantly reduced compared with conventional resins.

### TYPICAL LIQUID RESIN PROPERTIES

PROPERTY	TYPICAL VALUE	TEST DETAILS
Appearance	Translucent blue liquid	
Viscosity	1500 – 2000 cP 170 – 230 cP	Brookfield LVT sp.2/12 rpm Cone and Plate
Geltime	30 - 40 minutes	1% MEKP Interox NR20
Density	1.10 gcm <sup>-3</sup>	
Flash Point	31°C	Setaflash
Styrene Content	43 - 46%	
Shelf Life	6 months (when stored in original closed container, in the shade)	

\* 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.

### LOW STYRENE EMISSION RESINS

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.

### TYPICAL CAST UNFILLED RESIN PROPERTIES

PROPERTY	TYPICAL VALUE	TEST DETAILS
Hardness	40 - 45	Barcol (GYZ 934-1) EN 59
Density	1.19 gcm <sup>-3</sup>	ISO R1183
Volume Shrinkage	7-8%	ISO 3521
Tensile Strength	60 MPa	ISO R527
Flexural Strength	100 MPa	ISO 178
Flexural Modulus	4000 Mpa	ISO 178
Elongation at break	2.0%	ISO R527
Heat Distortion Temperature	70 - 75°C	ISO 75

\* 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.

### ADDITIONAL INFORMATION

When a laminate is built up in stages with intermediate curing, each operation should be finished with a normal resin/glass fibre ratio. Excellent inter-laminar adhesion properties have been demonstrated with Polyplex LSE Resin, 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.

### 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 unfavorable 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.