



Kuwait Chemical Manufacturing Company KSC

الشركة الكويتية للتصنيع الكيماوي (ش.م.ك.)

TECHNICAL DATA SHEET

14 November 2005

GENERAL PURPOSE POLYESTER RESIN

KUPOL LR 1300

Kupol LR 1300 is a versatile, non-accelerated, non-thixotropic, rapid curing unsaturated polyester based on orthophthalic anhydride and specifically designed for use in tropical climates. **Kupol LR 1300** has good mechanical and weathering properties.

Physical Characteristics

Parameter	Units	Limits
Non-Volatile Content	%	58 ± 2
Acid Value (as supplied)	mg KOH/g	25 max.
Viscosity (25°C)	cPs	200 - 250

Curing Characteristics

Parameter	Units	Limits
Gel Time @ 25°C	Minutes	5 - 10
Cure Time	Minutes	10 - 20
Peak Exotherm	°C	± 180

Curing parameters are determined on a 100 gram sample stabilised at 25°C and catalysed with 2% accelerator (1% Cobalt) and 2% Methyl Ethyl Ketone Peroxide (50%).

Application Properties and Areas of Utilisation

Kupol LR 1300 has been formulated for use in hand or spray lay-up contact moulding applications where mould drainage is not problematic, or in resin injection systems.

Kupol LR 1300 may be used in any general purpose GRP application where its resilience and impact strength are of benefit. **Kupol LR 1300** also has a fairly low exotherm which enables it to be used in multi-laminate systems where laminates are applied wet on wet. Examples of usage include, but are not limited to, water tanks, boat hulls (fresh water), kiosks and general jobbing. **Kupol LR 1300** should not be used in any applications requiring a high degree of structural stability and mechanical strength.

Curing

Kupol LR 1300 is non-accelerated and requires the addition of both cobalt accelerator and MEKP to affect curing. The cobalt level (as 1% cobalt solution) can be adjusted from 0.5 to 2.5% to meet laminating gel time requirements as dictated by production and environmental constraints. Levels above or below this range are not recommended. Although the product will cure with only 0.5% addition of peroxide, a level of between 1 and 2 % is recommended to achieve optimal mechanical properties.

Under no circumstances should cobalt accelerator and peroxide catalyst be admixed together because of a potential fire and/or explosion risk. The required amount of cobalt accelerator should be effectively mixed into the resin first before the addition of the catalyst.

Post Curing

Kupol LR 1300 laminates should be post cured where the highest mechanical properties are required and/or the product comes into contact with potable water or foodstuffs.

Packaging

Kupol LR 1300 is available in 220Kg net mild steel tight head drums or 1300 and/or 1500 Kg stainless steel totes.

Storage Stability and Safety

Kupol LR 1300 is stable for a period of 6 months when stored in its original container out of direct sunlight at temperatures not exceeding 25°C. This product contains styrene monomer and requires special care in handling. Please refer to the MSDS and any local statutory requirements.

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