



Kuwait Chemical Manufacturing Company KSC

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

TECHNICAL DATA SHEET

12 August 2006

GENERAL PURPOSE POLYESTER RESIN

KUPOL CR 2E04

Kupol CR 2E04 is pre-accelerated unsaturated polyester based on orthophthalic anhydride and specifically designed for the manufacture of general purpose synthetic marble products, clear castings and other "objet de art". **Kupol CR 2E04** has good colour and clarity and exhibits low exotherm and shrinkage.

Physical Characteristics

Parameter	Units	Limits
Non-Volatile Content	%	67 ± 2
Acid Value (as supplied)	mg KOH/g	30 max.
Viscosity (25°C)	cPs	800 - 1000

Curing Characteristics

Parameter	Units	Limits
Gel Time @ 25°C	Minutes	10 - 15
Cure Time	Minutes	20 - 30
Peak Exotherm	°C	± 150

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

Application Properties and Areas of Utilisation

Kupol CR 2E04 has been formulated for use in cast products without reinforcements and not subject to excessive mechanical stress or high operational temperatures.

Kupol CR 2E04 may be used in any casting application where it's excellent colour, clarity and low exotherm are of benefit such as synthetic marble and onyx, along with 'wood' filled castings (such as Pecan nut flour filler) and clear castings

Curing

Kupol CR 2E04 is pre-accelerated and requires only the addition of a suitable peroxide, such as MEKP, to affect curing. The accelerator system utilised is a specialised, multi component type, to achieve low casting colour whilst maintaining good gelation and curing properties. The addition of extra cobalt accelerator should be avoided as this will have a detrimental effect on the casting colour.

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 in clear castings. However, filler and colorant type and quality can have a pronounced affect on the resin curing properties in filled systems and extra peroxide of up to 4 % on the mix may be necessary to achieve acceptable demould times in a production environment.

Post Curing

Kupol CR 2E04 products 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 CR 2E04 is available in 220Kg net mild steel tight head drums. For alternative packaging requirements please consult our sales department.

Storage Stability and Safety

Kupol CR 2E04 is stable for a period of 4 months when stored in it's 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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No warranty or guarantee, express or implied, is made regarding the performance or stability of any product since the manner of use and/or conditions of storage are beyond our control. Additionally, KCMC are committed to improving all aspects of our product range through continued research and development. As such product composition and/or specifications may change without notice.