

Technical Data Sheet

23 April 2014

UNSATURATED POLYESTER RESIN FOR BODY FILLERS

KUPOL BF 4703

Kupol BF 4703 is a pre-accelerated, non-thixotropic, rapid curing unsaturated polyester designed for use in the manufacture of standard or light-weight body filler (body putty) systems cured using di-benzoyl peroxide catalyst (BPO). **Kupol BF 4703** is medium flexibility and contains wax to reduce oxygen inhibition during curing.

Characteristics of the resin as supplied:

Physical Characteristics

Parameter	Units	Limits	Parameter	Units	Limits
Non-Volatile Content	%	62.5 ± 2	Reactive Diluent *	Nil	Styrene
Gardner Viscosity	Nil	L - N	Acid Value (as supplied)	mg KOH/g	5 - 15
Brookfield Viscosity*	cPs	± 400	Colour	Gardner	7 Max

Curing Characteristics

Parameter	Units	Limits	
Gel Time @ 25°C	Minutes	5 - 10	Curing parameters are determined on a 100 gram sample stabilised at 25°C and catalysed with 2% Benzoyl Peroxide (50%).
Cure Time *	Minutes	10 - 20	
Peak Exotherm *	°C	± 115	

Properties marked with an * are provided for information purposes only and do not form part of the product specification.

Areas of use

Kupol BF 4703 has been formulated for the manufacture of automotive body filler (body putty) systems that are hand applied. Body fillers based on Kupol BF 4703 exhibit intermediate flexibility, with excellent adhesion to mild steel, filing and sanding properties, whilst maintaining very good feather edges at the sanded filler/metal border.

Suggested fillers for heavy-weight body fillers are 10 to 15 micron talc and ±1 micron precipitated barium sulphate (blanc fixe) with talc forming the bulk of the filler content. Any filler used in the manufacture of body fillers must be carefully chosen to have an iron content as low as possible (preferably less than 5 to 10 ppm) as excessive quantities of iron can result in a greenish tinge to the body filler and have a pronounced effect on the stability of the product. Pigmentation of the body filler may be chosen to suit the desired final product colour but care should be chosen to ensure that there is no adverse reaction between the pigment and the resin/ benzoyl peroxide paste. In particular care must be exercised when using carbon blacks in body filler formulations as certain types can adversely affect the shelf life of the body putty by absorbing the resin inhibitors.

Curing

Kupol BF 4703 is pre-accelerated and requires only the addition of benzoyl peroxide to affect curing. In general, the ratio of BPO added to a body filler is often described as a 'pea' size of BPO to a 'golf ball' size of the body filler - which amounts to approximately 2% m/m of BPO to the body filler. This will provide a working life of around 5 to 10 minutes for the catalysed mastic at 25°C.

Packaging

Kupol BF 4703 is available in 220Kg net mild steel tight head drums.

Storage Stability and Safety

Kupol BF 4703 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.

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. 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.