



Vasavibala Resins (P) Ltd.

POLYMER DIVISION
Manufacturers of Unsaturated Polyester Resins

TECHNICAL BROCHURE – UNSATURATED POLYESTER RESINS

GRADE : VBR 6705 –Pre Accelerated Iso Infusion Gelcoat with UV

VBR 6705 is a Pre Accelerated Isophthalic gelcoat with UV formulated for hand lay-up application. It is suitable for corrosion resistant and weather resistant applications. It has excellent air release properties. It achieves good coverage in thin film and does not sag on the mould. It shows good water and weather resistance.

PROPERTIES OF LIQUID RESIN		
Appearance	:	Pinkish hazy liquid
Viscosity at 25° C Brookfield Viscometer LV DV II + Pro Spindle 64, rpm 30, mPas	:	9000 - 14000
Density at 25° C gm/cm ³	:	1.14 – 1.16
Thixotropy %,	:	>3.5
Solid content, %	:	66 - 70
Shelf life at 25° C, months	:	3
Gel time at 25° C, minutes*	:	14 - 30
Tack off time @20°C, minutes	:	Max 120

* Mix VBR 6705 - 100 gm, , VBR 1204 - 1.5ml

PROPERTIES OF UNREINFORCED CURED RESIN CASTING

The specimens are prepared by mixing 1.5% VBR 1204 with VBR 6705 and casted in a closed cell of specified dimension. These castings are cured for 24 hrs at room temperature and post cured at 90°C for 4 hrs.

PROPERTIES OF RESIN CASTING		
Hardness (Barcol)	:	40
Tensile Strength, N/mm ²	:	53
Flexural Strength, N/mm ²	:	100
Heat distortion temperature, °C	:	85
Water Absorption at 25°C over a period of 700 hrs, %	:	0.38
Elongation at break, %	:	2.2

CHEMICAL RESISTANCE

Castings of VBR 6705 show good resistance to most acids at ambient temperature. It resists petroleum products, oils, salt solutions etc. It shows poor resistance towards strong oxidizing acids and alkalies. In terms of resistance to boiling water, VBR 6705 shows better performance than the orthophthalic polyester gelcoat. It is recommended for use in the marine and building industries. It is also suitable for all general moulding requirements. It shows good water and weather resistance.

THERMAL STABILITY

Castings of VBR 6705 show better dry heat stability than orthophthalate gelcoats.

TEST METHODS

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APPLICATION

VBR 6705 is suitable for vehicle mouldings and small to medium boat hulls and decks. It is resilient and flexible with good water and impact resistance. It is also suitable for all general purpose moulding.

STORAGE

VBR 6705 should be stored in closed containers inside covered area. The storage temperature not exceeding 25°C is preferable. At higher storage temperature, the shelf life decreases sharply. It should not be exposed to direct sunlight, heat radiation and moisture; these may cause premature gelation. VBR 6705 is guaranteed for 3 months from the date of manufacture provided the storage conditions are strictly adhered to.

PACKING

35 Kg. HDPE carbuoys and 225 Kg. coated steel barrels.