

TECHNICAL BROCHURE – UNSATURATED POLYESTER RESINS

GRADE: VBR 2312 – Pre Accelerated Ortho Filament Winding Resin

VBR 2312 is a versatile medium reactive orthophthalic based polyester resin, suitable for filament winding applications. It resists impact and thermal cracking

PROPERTIES OF LIQUID RESIN

Appearance	Pale pinkish to dark pinkish liquid
Viscosity at 25°C, cP or mPa (Brookfield Viscometer LV DV II + Pro Spindle 63, rpm 100)	300 – 450
Density at 25°C gm/cm ³	1.100 - 1.120
Acid value, mg KOH/gm	17 – 25
Volatile content, %	36 – 42
Shelf life at 25°C, months	3
Gel time at 25°C, minutes*	20 - 30

* Mix - VBR 2312 - 100 gm, VBR 1204 - 1.5 ml

PROPERTIES OF UNREINFORCED CURED RESIN CASTING

The specimens are prepared by mixing 1.5% of VBR 1204 and VBR 2312 casted in a closed cell of specified dimension. These castings are cured for 24 hrs at room temperature and post curing at 60°C for 4 hrs.

PROPERTIES OF RESIN CASTING	
Hardness (Barcol)	35 – 40
Tensile strength, N/mm ²	50 – 55
Flexural strength, N/mm ²	70 - 80
Heat distortion temperature, °C	60 – 70
Water absorption at 25°C over a period of 700 hrs, %	0.35 – 0.38

TEST METHODS

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APPLICATION

. VBR 2312 reinforced with glass fiber gives laminates with excellent mechanical properties. VBR 2312 is specifically meant for the fabrication of small to large FRP articles where high production rates at room temperatures are required. This resin is well suited for use in thick sections. VBR 2312 is suitable for wide range of applications in the chemical and transportation industries where both heat and weather resistances are prime criteria

STORAGE

VBR 2312 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 2312 is guaranteed for 3 months from the date of manufacture provided the storage conditions are strictly adhered to.

PACKING :

35 kg HDPE carboys and 220 kg coated steel barrels.