



Vasavibala Resins (P) Ltd.

POLYMER DIVISION
Manufacturers of Unsaturated Polyester Resins

TECHNICAL BROCHURE – UNSATURATED POLYESTER RESINS

GRADE : VBR 2302 S – ORTHO POLYMER CONCRETE RESIN

VBR 2302S is a medium reactivity orthophthalic based on polymer concrete products. This resin shows good wet out and rapid trim times in open mould process. This resin is suitable for use in spray-up and hand lay-up applications. It resists impact and thermal cracking.

PROPERTIES OF LIQUID RESIN

Appearance	Clear to pale yellowish liquid
Viscosity at 25° C, cP (Brookfield Viscometer LV DV II + Pro Spindle 61, rpm 20)	180 – 240
Specific gravity at 25° C	1.10 – 1.11
Acid value, mg KOH/gm	20 – 24
Volatile content, %	40 – 42
Shelf life at 25° C, months	3
Gel time at 25° C, minutes*	10 – 20
Peak exotherm, °C**	170 – 180

* Mix VBR 2302S Resin - 100 gm, VBR 1206 – 2 ml, VBR 1205 - 3 g

** Under insulated Condition for 100 gm mixture.

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PROPERTIES OF UNREINFORCED CURED RESIN CASTING

The specimens are prepared by separately mixing 2 ml of VBR 1206 and 3g VBR 1205 with VBR 2302 S 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.



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PROPERTIES OF RESIN CASTING

Barcol Hardness	38
Tensile Strength, MPa	> 40
Flexural Strength, MPa	> 110
Heat distortion temperature, °C	60 - 70
Water Absorption at 25°C over a period of 700 hrs, %	< 0.3
Elongation at break, %	2 – 2.5

TEST METHOD

IS 6746 – 1994.

APPLICATION

VBR 2302 S is suitable for polymer concrete applications.

STORAGE

VBR 2302 S 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 2302 S is guaranteed for 3 months from the date of manufacture provided the storage conditions are strictly adhered to.

PACKING

35 Kg. HDPE carbuoys and 220 Kg. coated steel barrels.