



Vasavibala Resins (P) Ltd.

POLYMER DIVISION
Manufacturers of Unsaturated Polyester Resins

TECHNICAL BROCHURE – UNSATURATED POLYESTER RESINS

GRADE : 3421 - SOLID SURFACE RESIN

VBR 3421 is a medium reactive isophthalic acid based polyester resin modified with acrylic monomer. It is suitable to produce non-gel coated, densified solid surface products. The finished product's look, feel and smell are equivalent to a cast acrylic.

PROPERTIES OF LIQUID RESIN		
Appearance	:	Pale yellowish Clear liquid
Colour (On Gardner scale, max)	:	4
Viscosity at 25°C, cPs (Brookfield Viscometer LV DV II + Pro Spindle 63, rpm 12	:	2600 –3000
Specific gravity at 25°C, gm/ml	:	1.13 - 1.14
Acid value, mg KOH/gm	:	15 – 19
Volatile content, %	:	28 – 32
Shelf life at 25°C, months	:	3
Gel time at 25°C, min*	:	10 – 20
Peak exotherm, °C*	:	170 – 180

* Mix VBR 3421 Resin -100 gm, VBR 1201 - 1.5 ml, VBR 1204 - 1.5 ml

** Under insulated conditions for 100gm mixture

Caution : VBR 1201 should never be independently mixed with VBR 1204, as this would cause explosion.

PROPERTIES OF UNREINFORCED CURED RESIN CASTING

The specimens are prepared by separately mixing 1.5 % each of VBR 1201 and VBR 1204 with VBR 3421 casted in a closed cell of specified dimension. These castings are cured for 24 hrs at room temperature and post curing at 90°C for 4 hrs.



PROPERTIES OF RESIN CASTING		
Hardness (Barcol)	:	44
Tensile strength, N/mm ²	:	58
Flexural strength, N/mm ²	:	95
Heat distortion temperature, °C	:	>95
Water absorption at 25°C over a period of 700 hrs, %	:	0.30
Elongation at break, %	:	>3

CHEMICAL RESISTANCE

Castings of VBR 3421 show good resistance to most acids at ambient temperature. It resists petroleum products, oils, salt solutions. It shows poor resistance to strong oxidizing acids and alkalies.

THERMAL STABILITY

Casting VBR 3421 shows superior thermal shock resistance

TEST METHODS

IS 6746 – 1994.

APPLICATION

VBR 3421 recommended for the manufacture of superior finish bath tubs, vanities, decorative items, table tops etc. It can be used for wide range of application where stain resistance is important. STORAGE

VBR 3421 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 3421 is guaranteed for 3 months from the date of manufacture provided the storing conditions are strictly adhered to.

PACKING 35 kg HDPE carboys and 220 kg coated steel barrels.