

VINALKYD 451 P (SMC/BMC)



Unsaturated polyester resin

- Description:** It is a medium viscosity, high reactivity, orthophthalic unsaturated polyester resin, dissolved in styrene.
- Use:** It is used for SMC and BMC production.
- Properties:**
- It has excellent ability to fill;
 - It has high mechanical properties;
 - It has stable SMC/BMC viscosity;
 - It has excellent pigmentability.
- Classification:** Meets the requirements of EU legislation.

CHARACTERISTICS

INDEXES	NORM
Appearance: (visually)	Clear viscous liquid
Hazen color (BNS ISO 2211)	max 150
Non-volatile content, 125°C/1h: (BNS EN ISO 3251)	64 ± 2 %
Viscosity at Brookfield 23°C, sp.4/50rpm: (ISO 2555)	1400-1800 mPa.s
Reactivity at 82°C: (100 g resins + 1 % Perkadox CH-50 X) - 65°C -90°C - 65°C- Tmax - Tmax (Test method)	10-16 min 11-18 min min 235°C
Acid number: (BNS EN ISO 3682)	15-20 mg KOH/g

ADDITIONAL INFORMATION

Density at 20°C: (BNS EN ISO 2811-1)	approx. 1,1 g/cm ³
Flash point, covered pot: (BNS ISO 2719)	34°C
Moisture: (Karl Fischer method)	max 0,1 %
Refractive index at 20°C: (Test method)	1,526-1,539

Mechanical Properties of Cured Resin

Before the mechanical tests, the cured resin is post-cured.

Index	Pure Resin Value
Tensile strength: (BNS EN ISO 527-1,2)	min 60 MPa
Flexural strength: (BNS EN ISO 178)	min 120 MPa
Flexural moduls: (BNS EN ISO 178)	min 3200 MPa
Elongation at break: (BNS EN ISO 527-1,2)	max 2,0%
HDT: (BNS EN ISO 75-1,2)	min 110°C
Hardness at 25°C (Barcol): (ASTM D 2583)	min 50

Solubility:	It dissolves in Styrene and Acetone.
Application:	It is used for SMC and BMC production.
Packaging:	In metal conic boxes 22 L, metal barrels; plastics containers; cisterns from stainless steel.
Storage:	<p>The resin should be stored indoors in the original, unopened and undamaged packaging in a dry place, protected from direct sunlight, at temperature between 5°C and 30°C.</p> <p>Store in dark and in 100 % light tight containers only.</p> <p>Shelf live is reduced at higher temperatures and the properties of the resin might change during storage.</p> <p>Storage shelf life - 4 months from the production date.</p>
Hygiene, safety work and ecology:	Refer to the Material Safety Data Sheet for further information on the safe storage, use and handling of Vinalkyd 451 P (SMC/BMC). The Material Safety Data Sheet (MSDS) should always be read and understood thoroughly before handling the product, and adequate safety procedures should be followed.

The present technical description has the purpose to inform the clients on the quality of our product. The data herein is based on our present best knowledge. We invite our clients before work to check the quality of the product or its adaptation to the base and to make an experimental application. Our clients must be sure, that the present technical description hasn't been changed or replaced by a newer edition.

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