

VINALKYD 520 PD-59



Unsaturated Polyester Resin

Description:	It is a low-viscosity, orthophthalic, with medium-high reactivity unsaturated polyester resin.
Use:	It is used for machine laminating in production of plumbing and sewerage pipes (in combination of the resin with fillers, roving, accelerator and hardener) and for polymermarble. Hardening is achieved by adding Cobalt accelerator Co-6% and Hardener MEKP-50 (Butanox M-50).
Classification:	In compliance with the requirements of EU legislation.

CHARACTERISTICS

INDEXES	NORM
Appearance: (visually)	Light yellow liquid
Color Gardner: (BNS ISO 4630)	max 2
Viscosity Brookfield at 25°C, spindle 2, 20 rpm: (ISO 2555)	300 - 450 mPa.s
Non-volatile content, 125°C: (BNS EN ISO 3251)	59±2 %
Reactivity at 25°C: (100 g resin + 0,3 g Co-6% + 2,0 g Butanox M-50)	
- gel time	4-8 min
- hardening time (from gelling time to T max)	7-14 min
-exothermic peak (Test Method)	180-205°C

Acid number:
(BNS EN ISO 2114-A)

max 23 mgKOH/g

ADDITIONAL INFORMATION

Density at 20°C:
(BNS ISO 2811-1)

1,1 g/cm³

Flash point, closed cup:
(BNS ISO 2719)

33°C

Physical-mechanical properties

Hardening system: 0,3 % Co-6% + 2,0% Butanox M-50

Hardening condition: 24 h at room temperature

Post-curing 16 h at 40°C

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Tensile strength:
(ISO 527-1,2)

Value

min 70 MPa

Flexural strength:
(ISO 527-1,2)

min 120 MPa

Elongation at break:
(BNS EN ISO 527-1,2)

min 2,1%

HDT:
(BNS EN ISO 75-1,2)

min 95°C

Glass transition:
(ASTM E 1545-00)

min 105°C

Hardness at 25°C:
(ASTM D 2583)

min 40 (Barcol 934-1)

Water absorption (24 hours):
(ISO 62)

max 0,2%

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- Solubility:** It dissolves in styrene or acetone.
- Application:** The unsaturated polyester resin Vinalkyd 520 PD-59 hardens after the following hardening system:
-Accelerator - Cobalt: 0,3 % Co-6%
-Hardener - MEKP-50 (Butanox M-50): 2,0 %
The mixture should be well homogenized and then used to machine laminating in production of plumbing and sewerage pipes in combination with roving (glass fibre) and fillers.
- Package:** In metal barrels; plastic containers; cisterns made of stainless steel.
- Storage:** Storage temperature: up to 25°C.
Store in original, tightly sealed packages in sheltered, dry and fire-protected storage areas, away from direct sunlight and heating appliances.
Storage shelf life - 6 months from the production date in factory-sealed packages.
Storage at higher temperature will reduce shelf life.
Attention! Do not allow direct contact of organic peroxides with accelerators when using, transporting and storing.
- Hygiene, safety work and ecology:** Refer to the Material Safety Data Sheet for further information on the safe storage, use and handling of Vinalkyd 520 PD-59. 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.

Orgachim Resins®

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