

VINALKYD 350 NPP



Neopentyl glycol-isophthalic unsaturated polyester resin

Description: Vinalkyd 350 NPP is a neopentyl glycol-isophthalic high reactivity polyester resin for the production of pigmented and colourless, chemically resistant polyester gel coats.

Use: It is used for the production of pigmented and colourless, chemically resistant polyester isophthalic gel coats, for exterior decorative design of articles made of fibreglass, requiring high chemical and mechanical resistance, UV resistance, with higher elasticity and water impermeability. The hardening is carried by addition of accelerator Co-1% and hardener MEKP-50 (Butanox M-50) . Reinforcement is made by glass fibre addition up to 60 % in several layers.

- It can be thixotroped;
- It can be pigmented with organic and inorganic pigment pastes;
- Unsaturated polyester resins reinforced by glass mat laminate may be applied on top;
- A topcoat may also be applied on it.

Classification: In compliance with the requirements of EU legislation.

CHARACTERISTICS

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NORM

Appearance: (visually)	Transparent syrup-like liquid
Gardner colour: (BNS ISO 4630)	max 1
Non-volatile content, 1h/125°C: (BNS EN ISO 3251)	60 ± 1 %
Brookfield viscosity at 25°C: (sp.2/50 rpm) (ISO 2555)	450 - 650 mPa.s

Acid number:
(BNS EN ISO 3682)

max 14 mgKOH/g

Reactivity at 25°C:
(1% Co-1% and 1,5% Butanox M-50)

- **gell time**
- **hardening time**
- **exothermic peak**
(Test method)

6 – 9 min
max 25 min
min 170°C

ADDITIONAL INFORMATION

Density at 20°C:
(BNS ISO 2811-1)

1,07 g/cm³

Flash point, closed cup:
(BNS ISO 2719)

32°C

Modifications:

A (accelerated)

PHYSICAL-MECHANICAL PROPERTIES

Hardening system:

1% Co-1%
1,5% MEKP-50 (Butanox M-50)

Hardening conditions:

24 h at room temperatures
Post-curing -16 h at 40 °C

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VALUE

Tensile strength
(BNS EN ISO 527-1,2)

min.65 MPa

Flexural modulus
(BNS EN ISO 178)

min.3300MPa

HDT
(BNS EN ISO 75-1,2)

min.85°C

Hardness at 25°C (Barcol)
(ASTM D 2583)

min.45

Water absorption (24 hours)
(ISO 62)

max.0.2 %

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Solubility:	Dissolves in styrene, acetone and n-butyl-acetate.
Application:	<p>The unsaturated polyester resin Vinalkyd 350 NPP is hardened with the following hardening system: Add 10 g Co-1% to 1000 g resin, homogenize the mixture well and then add 15 g hardener Butanox M-50, stir again and use it for preparation of the articles. The viability of the mixture is from 6 to 9 minutes and depends on the temperature of the resin, as the process of gelling accelerates additionally at temperature higher than 25°C, and the lower temperature slows down the gelling time.</p>
Package:	In metal conic cans from 22 l; metal barrels; cisterns from stainless steel.
Storage:	<p>Store the packed unsaturated polyester resin in sheltered, dry and fireproof warehouses, protected from direct sunlight, at temperature up to 25°C. Storage shelf life – 6 months from the production date. Attention! Do not allow direct contact of organic peroxides with accelerators when using, transporting and storing.</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 350 NPP. 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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