

## VINALKYD 550 PE –R/61



### Orthophthalic Unsaturated Polyester Resin

**Description:** It is orthophthalic, medium reactive, non-accelerated, non-tixotropic unsaturated polyester resin design for general purpose glass reinforced application (GRP).

**Use:** The resin has good mechanical strength properties and suitable for boat construction, car body parts, cabins, constructions and industry purposes. 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 applied after gel coats;
- Very good wetting properties of fibre glass
- Good mechanical properties
- On the last coating might be applied top coat

**Classification:** Meets the requirements of EU legislation.

## CHARACTERISTICS

INDEXES	NORM
<b>Appearance:</b> (visually)	Transparent syrup-like liquid
<b>Gardner color</b> (BNS ISO 4530)	max.2
<b>Viscosity at Brookfield at 23°C:</b> (ISO 2555)	400-550 mPa.s
<b>Acid number:</b> (BNS EN ISO 3682)	max 30 mgKOH/g
<b>Non-volatile content:</b> (BNS EN ISO 3251)	61±2%

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**Gel time at 20 °C:**

(after adding of 1% Co-1% +2 % Butanox M-50)  
(BNS ISO 2535)

10-30 min

**Gel Time can be adjusted to the customer requirements.**

## ADDITIONAL INFORMATION

**Reactivity at 20°C:**

(after adding of 1% Co-1% +2 % Butanox M-50)

- **gelling time**
- **hardening time/from gel time to Tmax/**
- **temperature maximum**

10 - 20 min

12 - 25 min

min. 165°C

(Test Method)

**Density at 20°C:**

(BNS ISO 2811-1)

1,1 g/cm<sup>3</sup>**Flash point, covered pot:**

(BNS ISO 2719)

34°C

**Modifications:**

A (accelerated)

## Physical-mechanical properties

Hardening system: 1%Co-1% +2% MEKP

Hardening condition: 24h at room temperatre

Post -curing 16h at 40°C

**Index****Value****Tensile strength:**

(BNS EN ISO 527-1,2)

min.70 MPa

**Flexural strength:**

(BNS EN ISO 178)

min.140 MPa

**Flexural moduls:**

(BNS EN ISO 178)

min.3400MPa

**Elongation at break:**

(BNS EN ISO 527-1,2)

min.2%

**HDT:**

(BNS EN ISO 75-1,2)

min.67°C

**Hardness at 25°C (Barcol):**

(ASTM D 2583)

min.50

**Water absorption (24 hours):**  
(ISO 62)

max.0.2%

**Solubility:**

It dissolves in styrene and acetone.

**Application:**

Unsaturated polyester resin Vinalkyd 550 PE-R/61 hardens after the following hardening system:

Add 10 g Co-1% and 20 g MEKP-50 (Butanox M-50) to 1000 g resin. The mixture should be well homogenized and then used for preparation of the articles. The viability of the mixture is from 10 to 30 minutes and depends on the temperature of the resin, as the process of gelling accelerates additionally at temperature higher than 20°C, and the lower temperature slows down the time of gelling.

**Package:**

In metal conic cans 22 L; metal barrels ; cisterns from stainless steel

**Storage:**

Store the packed unsaturated Polyester resin in sheltered, dry and fireproof warehouses, protected from direct sunlight, at temperature up to 25°C.

Prolonged storage or storage outside of recommended conditions can influence liquid resin properties like viscosity and gel time.

Storage shelf life - 6 months from the production date.

**Attention!** Don't allow direct contact of organic peroxides with accelerators when using, transporting and storing.

**Hygiene, safety work and ecology:**

Refer to the Safety Data Sheet for further information on the safe storage, use and handling of Vinalkyd 550 PE-R/61. The Material Safety Data Sheet (MSDS) should always be read and understood thoroughly before handling the product, and adequate safety procedures should be followed.

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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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**Orgachim Resins®**

Ruse 7000, 21 Treti mart Blvd., tel.: +359 82 886 340; fax: +359 82 886 340

[www.orgachimresins.bg](http://www.orgachimresins.bg)