

## Vinalkyd 550 PE-TA-LV



### Orthophthalic Unsaturated Polyester Resin

**Description:** Thixotroped previously accelerated, orthophthalic, medium reactivity unsaturated polyester resin. The resin contains a peroxide indication system, which effects a colour change from bluish to pale green after addition of catalyst.

**Use:** Applied for production of fibreglass articles used for boat construction, household, building and industry purposes. The hardening is carried by addition of 1,5 % 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;
- It may be pigmented with organic and inorganic pigments;
- Very good wetting properties of glass-fibre;
- It does not flow down, when applied on vertical surface;
- On the last coat can be applied topcoat.

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

### Characteristics

| INDEX  | NORM                             |
|--|----------------------------------|
| <b>Appearance:</b><br>(visually)   | Bluish-colored tixotropic liquid |
| <b>Non-volatile content, 125°C/1h:</b><br>(BNS EN ISO 3251)              | 58 ± 2 %                         |
| <b>Viscosity Brookfield at 25°C (sp.2/30rpm):</b><br>(ISO 2555)          | 600-800 mPa.s                    |
| <b>Tixotropic index at 25°C (sp.3, 5/50rpm):</b><br>(ASTM D 2196-05 (B)) | min 3,0                          |
| <b>Reactivity at 23°C:</b><br>(100 g resin + 1,5 g Butanox M-50)         |                                  |
| <b>-gel time(23-35°C)</b>  | 20-30 min                        |
| <b>-hardening time</b>   | 10-15 min                        |
| <b>-maximym temperature, T max</b><br>(Test Method)                      | 150-170°C                        |

## Other data

|  |                       |
|--|-----------------------|
| <b>Density at 20°C:</b><br>(BNS EN ISO 2811-1) | 1,1 g/cm <sup>3</sup> |
| <b>Acid number:</b><br>(BNS EN ISO 3682)       | max 26 mgKOH/g        |
| <b>Flash point:</b><br>(BNS ISO 2719)          | 34°C                  |

## Physical-mechanical properties

Hardening system: +1,5% MEKP-50  
 Hardening condition: 24h at room temperature  
 Post-curing 16h at 40°C

| Index  | Value       |
|--|-------------|
| <b>Tensile strength:</b><br>(BNS EN ISO 527-1,2) | min 65 MPa  |
| <b>Flexural strength:</b><br>(BNS EN ISO 178)    | min 115 MPa |
| <b>Hardness at 25 °C:</b><br>(ASTM D 2583 )      | min 40      |
| <b>HDT:</b><br>(BNS EN ISO 75-1,2 )              | min 63 °C   |

**Application:** Unsaturated polyester resin Vinalkyd 550 PE-TA-LV has to be homogenized well before use. It is curing with following hardening system:  
 Add to 1000 g resin 15 g MEKP (Butanox M-50). The mixture must be well homogenized and then used for preparation of the details. The viability of the mixture is from 20 to 30 minutes and depends on the temperature of the resin, as the process of gelling accelerates additionally at temperature higher than 23°C, however low temperature decelerates the time of gelling.

**Packaging:** In metal conic boxes; metal barrels and cisterns from stainless steel

**Storage:**

The packed unsaturated polyester resin is stored in closed, dry and fire prevented storage areas, protected from direct sunlight, at temperature up to 25°C.

In case of separation the system has to be homogenised before usage.

Prolonged storage or storage outside of recommended conditions can influence on liquid resin properties like viscosity and gel time. An addition of 0,5-1,0% Co-1% may be necessary to restore the original pot life.

Storage shelf life - 3 months from the production date.

**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-TA-LV. 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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