

COLPOLY 7166

Unsaturated Polyester Resin

Description:

Unsaturated polyester resin based on isophthalic acid and neopentyl glycol (NPG), dissolved in styrene.

Application:

- » Specially formulated resin for tanks, silos and pipes.
- » Colpoly 7166 is used as an adhesion promoter between PVC and GRP in the construction of GRP tanks with PVC liners.

Features and benefits:

- » Excellent mechanical strength.
- » High HDT.
- » Outstanding durability.

Physical characteristics of the liquid resin:

| Property | Range | Method / According to standard |
|---------------------------------|------------------|--------------------------------|
| Appearance | Clear | |
| Acid value | 10 - 20 mg KOH/g | MH1051 / ISO 2114 |
| Density, 25 °C | 1.05 - 1.35 kg/L | MH1028 / ISO 2811 |
| Styrene content | 41 - 45% | MH2034 |
| Viscosity, 25 °C | 330 - 410 mPa·s | MH1009 / ISO 3219 |
| Flash point | 34 °C | DIN 51 755 |
| Shelf life at 25 °C in darkness | 6 months | |

Curing characteristics at 25 °C:

| Property | Range | Method / According to standard |
|-------------------------------|-----------------|---|
| Gel time | 20 - 30 minutes | MH3021 / MH3023 |
| Time from 20 °C to peak | 10 - 20 minutes | 100 g resin, 0.25% Co Acc. 6% 1.5% MEKP-50 |
| Exothermic temperature (peak) | 170 - 190 °C | |

Note: The information contained herein is provided in good faith and is to the best of our knowledge accurate, but we assume no liability for its accuracy or completeness. Therefore, the buyer is advised to determine the suitability of this product for the intended use. We retain the right to make any changes according to technological progress or further developments. For safety information please refer to the current Material Safety Data Sheet.

Edition: February 2021

Physical characteristics of cured nonreinforced base resin:

| Property | Range | Method / According to standard |
|------------------------------|------------------|--------------------------------|
| Density, 20 °C | 1.15 - 1.20 kg/L | ISO 1183 |
| Barcol hardness | 35 - 45 | EN 59 |
| Tensile strength | 50 - 70 MPa | ISO R 527 |
| Elongation at break | 4.0 - 5.0% | ISO R 527 |
| Flexural strength | 70 - 90 MPa | ISO 178 |
| E - modulus in tension | 3200 - 3600 MPa | ISO R 527 |
| Water absorption | < 1.5% | ISO 62 |
| Heat distortion temperature | 85 - 95 °C | ISO 75 A |
| Glass transition temperature | 100 - 110 °C | ISO 537 |

Cure:

- » It is recommended that gel time be checked in the customer's plant as age, temperature, humidity and catalyst will produce varied gel times.
- » The catalyst level should not exceed 2.5% or fall below 1.0% for proper cure at ambient temperature.
- » The product should not be used when temperature condition is below 18 °C.

Handling and safety precautions:

Colpoly 7166 is flammable liquid and should be kept away from naked flames. For further details, please see the relevant Safety Data Sheet.

Note: The information contained herein is provided in good faith and is to the best of our knowledge accurate, but we assume no liability for its accuracy or completeness. Therefore, the buyer is advised to determine the suitability of this product for the intended use. We retain the right to make any changes according to technological progress or further developments. For safety information please refer to the current Material Safety Data Sheet.

Edition: February 2021