

COLPOLY 7524-03

Unsaturated Polyester Resin

Description:

- » Unsaturated polyester resin for GRP, based on orthophthalic acid and standard glycols dissolved in styrene.
- » The resin has a high reactivity and a low viscosity.

Application:

- » Resin is recommended for wide range of applications; due to its low viscosity COLPOLY 7524-03 features excellent impregnation during the production of GRP mouldings which are processed by hand lay-up and injection techniques.
- » Recommended laminate thickness applied wet-on-wet 3 - 8 mm.

Features and benefits:

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

Approvals:

Cured unreinforced resin conforms to type 1140 according to DIN 16946 and is classified in group 1 according to DIN 18820.

Physical characteristics of the liquid resin:

| Property | Range | Method / According to standard |
|---------------------------------|------------------|--------------------------------|
| Appearance | Clear | |
| Acid value | 10 - 30 mg KOH/g | MH1051 / ISO 2114 |
| Density, 25 °C | 1.10 - 1.13 kg/L | MH1028 / ISO 2811 |
| Styrene content | 35 - 38% | MH2034 |
| Viscosity; 25 °C, #2/20 rpm | 200 - 250 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 |
|-------------------------------|-----------------|---|
| Time from 25 °C - 35 °C | 8 - 11 minutes | MH3023 glass tube, 0.8% Co Acc. 1% 1.0% AAP |
| Time from 25 °C to peak | 12 - 16 minutes | |
| Exothermic temperature (peak) | 150 - 170 °C | |

Physical characteristics of cured nonreinforced base resin:

| Property | Range | Method / According to standard |
|------------------------------|---------------------------|--------------------------------|
| Density, 20 °C | 1.20 - 1.23 kg/L | ISO 1183 |
| Barcol hardness | 35 - 45 | EN 59 |
| Tensile strength | 70 - 80 MPa | ISO R 527 |
| Elongation at break | 3.5 - 4.5% | ISO R 527 |
| Flexural strength | 110 - 130 MPa | ISO 178 |
| E - modulus in tension | 3400 - 3800 MPa | ISO R 527 |
| Impact resistance | 19 - 23 kJ/m ² | ISO 179 |
| Heat distortion temperature | 85 - 90 °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 7524-03 is flammable liquid and should be kept away from naked flames. For further details, please see the relevant Safety Data Sheet.

Disclaimer

This data is based on experience, for its completeness, we assume no liability. As we take no influence on the processing, it lies within the obligation of the customer to test, whether it is suitable for the intended purpose, before using the product. Any change in the processing procedure, the environmental conditions or the failure to comply with instructions may unfavorably influence the result. This Technical Datasheet is available on our website at www.helios.si. Should there be any discrepancies between this document and the version that appears on the website, then the version on the Website will take precedence.

TECHNICAL DATASHEET

Copyright © Helios Resins & Atcoat | www.resinshelios.com | www.atcoat.com

Issue Date: April 2025

Page: 2/2