

## 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 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	

**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.

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**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 <sup>2</sup>	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.

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