

## COLPOLY 7805

### Unsaturated Polyester Resin

#### Description:

- » Unsaturated polyester resin for GRP, based on isophthalic acid and standard glycols dissolved in styrene.
- » COLPOLY 7805 is preaccelerated and thixotropic.
- » **CAUTION:** Prolonged storage or unfavourable storage conditions may cause slight separation, hence agitation of the resin before use is recommended.

#### Application:

- » General purpose applications hand lay-up and spray-up (boats, seats, containers, parts for car bodies, sporting equipment).
- » Recommended laminate thickness applied wet-on-wet 2 - 8 mm.
- » **It is recommended that all laminates that been heat-cured, exposed to direct sunlight, or allowed to cure more than 48 hours at room temperature be sanded before the next laminate is applied.**

#### Features and benefits:

- » Good outstanding mechanical properties.
- » High resistance to hydrolysis.
- » Low water absorption.
- » Medium thixotropic index (2.5 – 3.5).

#### Physical characteristics of the liquid resin:

Property	Range	Method / According to standard
Appearance	Blue, opaque	
Acid value	10 - 20 mg KOH/g	MH1051 / ISO 2114
Density, 25 °C	1.10 - 1.12 kg/L	MH1028 / ISO 2811
Styrene content	44 - 48%	MH2034
Viscosity, 25 °C, #2/10 rpm	1000 - 1500 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:

##### S - version

Property	Range	Method / According to standard
Gel time	25 - 30 minutes	MH3021 / MH3023 100 g resin, 1.5% MEKP-50
Time from 25 °C to peak	35 - 45 minutes	
Exothermic temperature (peak)	150 - 170 °C	

##### W - version

Property	Range	Method / According to standard
Gel time	16 - 20 minutes	MH3021 / MH3023 100 g resin, 1.5% MEKP-50
Time from 25 °C to peak	25 - 35 minutes	
Exothermic temperature (peak)	170 - 190 °C	

**Physical characteristics of cured nonreinforced base resin:**

Property	Range	Method / According to standard
Density, 20 °C	1.16 - 1.20 kg/L	ISO 1183
Barcol hardness	40 - 45	EN 59
Tensile strength	80 - 90 MPa	ISO R 527
Elongation at break	3.0 - 4.0%	ISO R 527
Flexural strength	110 - 120 MPa	ISO 178
E - modulus in tension	3000 - 3400 MPa	ISO R 527
Impact resistance	15 - 20 kJ/m <sup>2</sup>	ISO 179
Heat distortion temperature	85 - 90 °C	ISO 75 A
Glass transition temperature	100 - 120 °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 25 °C.
- » The product should not be used when temperature condition is below 18 °C.

**Handling and safety precautions:**

Colpoly 7805 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](http://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](http://www.resinshelios.com) | [www.atcoat.com](http://www.atcoat.com)

Issue Date: April 2025

Page: 2/2