

# **COLVINYL VE 105 LV**

## **Epoxy Vinyl Ester Resin**

#### **Description:**

- >> Epoxy vinyl ester resin dissolved in styrene.
- The resin has a medium reactivity and low viscosity.

#### Application:

The resin is suitable for applications in pultrusion, typical applications are in field of electrical engineering, building and transport.

#### Features and benefits:

- >> Optimal wetting of the glass fibre.
- >> Good mechanical properties and excellent corrosion resistant.
- >> High HDT.

### Physical characteristics of the liquid resin:

| Property                        | Range            | Method / According to standard |
|---------------------------------|------------------|--------------------------------|
| Appearance                      | Clear            |                                |
| Acid value                      | max. 15 mg KOH/g | MH1051 / ISO 2114              |
| Density, 25 °C                  | 1.05 - 1.10 kg/L | MH1028 / ISO 2811              |
| Styrene content                 | 32 - 36%         | MH2034                         |
| Viscosity; 25 °C, #2/20 rpm     | 400 - 600 mPa·s  | MH1009 / ISO 3219              |
| Flash point                     | 34 °C            | DIN 51 755                     |
| Shelf life at 25 °C in darkness | 6 months         |                                |

### Curing characteristics at 80 °C:

| Property                      | Range          | Method / According to standard |
|-------------------------------|----------------|--------------------------------|
| Time from 65 °C to 90 °C      | 6 - 10 minutes | MH3024                         |
| Time from 65 °C to peak       | 8 - 12 minutes | 2.0% BP-50                     |
| Exothermic temperature (peak) | 180 - 210 °C   |                                |

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

| Property                     | Range            | Method / According to standard |
|------------------------------|------------------|--------------------------------|
| Density, 20 °C               | 1.12 - 1.15 kg/L | ISO 1183                       |
| Barcol hardness              | 35               | EN 59                          |
| Tensile strength             | 85 - 90 MPa      | ISO R 527                      |
| Elongation at break          | 5 - 6%           | ISO R 527                      |
| Flexural strength            | 140 - 145 MPa    | ISO 178                        |
| E - modulus in tension       | 3300 - 3400 MPa  | ISO R 527                      |
| Heat distortion temperature  | 105 - 110 °C     | ISO 75 A                       |
| Glass transition temperature | 120 - 125 °C     | ISO 537                        |

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### TECHNICAL DATA SHEET



#### Handling and safety precautions:

Colvinyl VE 105 LV 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.

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