

Technical Datasheet

INEOS Composites

AROPOL™ M 520 TE Iso/NPG Polyester Resin

Description AROPOL M 520 TE is an advanced, low reactive isophthalic and neopentylglycol base resin, with good mechanical properties, impact strength in particular.
 AROPOL M 520 TE has high tensile elongation and very low water absorption compared to conventional isophthalic and iso/NPG polyester resins.
 AROPOL M 520 TE is thixotropic, preaccelerated and contains additives to reduce the styrene emissions.

Typical Liquid Resin Properties

| Property at 23°C | Value | Unit | Method |
|------------------------------------|-------------|-------|--------|
| Viscosity, Brookfield, LV2, 12 rpm | 1100 - 1300 | mPa.s | A040 |
| Viscosity, cone&plate | 270 - 300 | mPa.s | A010 |
| Volatile content | 45,5 - 49,5 | % | B070 |
| Geltime, 1% BUTANOX M-50 | 35 - 45 | min | G020 |

Typical Cured Properties

| Property | Value | Unit | Method |
|-----------------------------------|-------|------|---------|
| Tensile Strength | 73 | MPa | ISO 527 |
| Tensile Modulus | 3100 | MPa | ISO 527 |
| Elongation at Break | 6,5 | % | ISO 527 |
| Flexural Strength | 135 | MPa | ISO 178 |
| Flexural Modulus | 3000 | MPa | ISO 178 |
| Heat Deflection Temperature (HDT) | 90 | °C | ISO 75 |

Application and Use

AROPOL M 520 TE is especially formulated to give an optimum bonding to glass and aramide fibres. AROPOL M 520 TE is recommended for constructions subjected to high static and/or dynamic loads. AROPOL M 520 TE is recommended for hand lay-up and spray-up application. AROPOL M 520 TE has a low exothermic accelerator system which is adjusted for laminate thickness 4-8 mm applied wet-on-wet. When laminating on insulating materials (e.g. sandwich constructions) a laminate thickness of 2-5 mm is recommended.

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| Certificates and Approvals | The manufacturing, quality control and distribution of products, by INEOS Composites, complying with one or more of the following programs or standards: Responsible Care and ISO 9001. |
| Handling and Storage | It is highly recommended that all material is stored at stable temperatures under 25°C preferably indoors, and away from direct sunlight. Prolonged storage outside of recommended conditions can influence liquid resin properties like viscosity and gel time. It is also strongly recommended to mix resin thoroughly before use. Shelf life of AROPOL M 520 TE resin is six (6) months. |
| Notice | <p>All information presented herein is believed to be accurate and reliable, and is solely for the user's consideration, investigation and verification. The information is not to be taken as an express or implied representation or warranty for which INEOS Composites assumes legal responsibility. Any warranties, including warranties of merchantability, fitness for use or non-infringement of intellectual property rights of third parties, are herewith expressly excluded.</p> <p>Since the user's product formulations, specific use applications and conditions of use are beyond the control of INEOS Composites, INEOS Composites makes no warranty or representation regarding the results which may be obtained by the user. It shall be the sole responsibility of the user to determine the suitability of any of the products mentioned for the user's specific application.</p> <p>INEOS Composites requests that the user reads, understands and complies with the information contained herein and the current Material Safety Data Sheet.</p> |