

RESIPUR™ 5166 is an isophthalic unsaturated polyester resin of high reactivity, pre-accelerated and thixotropic. The lower viscosity and gel time makes it suitable for the winter season. It is specifically formulated for hand lay-up and spray-up applications and offers excellent mechanical strength. Its thixotropic nature ensures easy application on vertical surfaces without sagging, while delivering a smooth surface finish.

For further information regarding this product please refer to:

Construction Synthomer

eMail: [Construction@synthomer.com](mailto:Construction@synthomer.com)

Property	Typical Value	Unit	Method <sup>1</sup>
Polymer Content	54.0	%	ISO 3251
Viscosity @ 25 °C (Brookfield RVT #2/20 rpm)	400	mPa·s	ISO 2555
Gel Time @ 25 °C	14	min	ASTM D 2471
Density @ 20°C	approx. 1.12	g/cm³	ISO 2811-1
Flash Point	approx. 32	°C	ISO 3679

#### Properties of Cured Resin

Tensile Strength	80	MPa	ISO 527
Elongation at Break	4.6	%	ISO 527
Flexural Strength	130	MPa	ISO 178
Barcol Hardness	47		ASTM D 2583
Shrinkage on Curing	9.7	%	ISO 3521
Water Absorption @ 23 °C (7 days)	0.5	%	ISO 62
HDT	74	°C	ISO 75-A
E-Modulus	3700	MPa	ISO 527

<sup>1</sup> internal method based upon the specified norm

## Application Advice

RESIPUR™ 5166 is designed for use in rigid laminates produced by hand lay-up or filament winding.

RESIPUR™ 5166 may be cured at room temperature by means of the addition of an initiator (e.g. methyl ethyl ketone peroxide - MEKP). In order to improve the surface curing, a solution of paraffin in styrene may be added. To obtain the ideal curing, it is recommended that the molded piece should not be used until 7 days after manufacture. The lamination of consecutive layers with more than 24 hours of interval is not recommended.

The application viscosity may be adjusted through the addition of styrene. The specification data in this technical data sheet is for the unmodified product without addition of styrene.

Stirring before use is recommended.

The delivery form of RESIPUR™ 5166 is approx. 54% of polymer diluted in styrene.

For additional information, please contact our Technical Service team.

## Shipping and Storage

RESIPUR™ 5166 should be stored in the original and unopened containers and in the absence of light for no longer than 3 months at a temperature below 25°C. Higher temperatures may decrease significantly the storage stability.

## Product Safety

Before handling, please read the Safety Data Sheet of this product for advice on safety, use and disposal.