**Technical Data Sheet** 

# **Unsaturated polyester resin**

## **Orthophthalic Polyester Resin**

## **Product Description:**

Kimia O-731 is a pre-promoted and thixotropic orthophthalic based Unsaturated Polyester Resin with medium viscosity, limited water absorption, resistant to hydrolysis and very good mechanical properties for ambient temperature cure with MEK peroxide.

#### **Characteristics and Advantages:**

- Medium viscosity
- Limited water absorption
- Resistance to hydrolysis
- Excellent adhesion to glass fiber
- Very good mechanical and chemical properties

#### Uses:

- Marine vessels and boats
- Pultrusion

## **Technical Properties:**

#### Physical data in a liquid state at 25 C

Properties	Unit	Value	Test method
Appearance	NA	Hazy	NA
Color	Gardner	A	ASTM D1544
Viscosity (at 25°C)	mPa.s (cP)	700-1000	ISO 2555
Density (at 23°C)	g/cm³	1.1599	ASTM D1475
Acid number	mg KOH/g	Max 20	ASTM D1639
Solid content	%	63 ± 2	ASTM D1259
Gel time*	min	12-18	ASTM D2471
Curing time	min	25	ASTM D2471
Peak exothermic temperature	°C	Max 170	ASTM D2471
Water absorption	wt%	Max 0.22	ISO 62
Flash point (open cup)	°C	3	ASTM D92

This information is continuously measured and considered a part of the product's technical specifications, and their presence is only for a better description of the product.

Office Address : Unit 5, Second floor, Shohada building, On the corner of Karkhaneh ghand cross road, Karaj city, Alborz province, Iran Factory Address : SH Block, Talashgaran Alley, koushesh Avenue, Kowsar industrial Zone, Karaj city, Alborz province, Iran

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## **Typical non-reinforced casting properties**

Tensile strength	МРа	Min 65	ISO 527-2
Tensile elongation	%	3.41	ISO 527-2
Tensile modulus	MPa	1660	ISO 527-2
Flexural strength	MPa	Min 120	ISO 178
Flexural modulus	MPa	39-83	ISO 178
Heat distortion temperature(HDT)	°C	Min 65	ASTM D648
Hardness (Barcol)	NA	Min 40	ASTM D2583
Linear shrinkage	%	Max 1.2	ASTM D2566

The usual protective measures employed during the handling of Unsaturated Polyester Resins should be observed. Further product safety information can be obtained from our Material Safety Data Sheet which is available on request.

Packaging: 200 kg (net) in steel drums

**Storage:** Store in a cool place below 25 °C and away from moisture and direct sunlight. Under the above-mentioned storage conditions, the shelf life of the resin will be at least 6 months ex-works.

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