



Polyester Resin IK 300

Technical Data Sheet

Product Name: IK 300 - Special Purpose Unsaturated Polyester Resin,

Description: IK300 is an Orthophthalic UP resin specially designed for pressure molding in the production of rigid composite products prepared with IK300 are resilient and have excellent mechanical and physical properties with very good chemical and weathering resistance characteristics.

IK 300 may also be used successfully in fiber reinforced applications to the advantage of the user. IK300 is also suitable for use in application areas as a general purpose ortho resin with its very low color values it can successfully be used for transparent applications.

Typical properties of liquid resin.

Property ^{*1}	Value
Acid Value	30 ± 2 mgr KOH/gr
Appearance	Clear liquid
Solid content	63 ± 2 %
Viscosity ^{*2}	500 - 650 cps
Specific gravity	1.05 - 1.1 gr/cm ³
Gel time ^{*3}	10 – 13 min
Time to Peak	20 – 25 min
Peak exoterm	160 ± 5 °C
Shelf life	6 Month

*1 : Measurement was obtained under 25°C

*2 : LVT# 3-60 rpm (@) 25°C

*3 : Cobalt 10% , 0.1 phr MEKP A 60 , 1.5% (@) 25°C



TYPICAL CLEAR CASTING PROPERTIES OF CURED

PROPERTY	ST ^{*4}	TEST METHOD
Tensile strength	50 ± 5 MPa	ASTM D638
Tensile modulus	2.2 ~ 2.4 Gpa	ASTM D638
Tensile elongation	2 ~ 4 %	ASTM D638
Flexural strength	100 – 120 Mpa	ASTM D790
Flexural modulus	4.0 – 4.2 Gpa	ASTM D790
Volume shrinkage	4 - 5 %	ASTM D2566
HDT ^{*5}	70 ± 5 °C	ASTM D648
Barcol Hardness	40 ± 5	ASTM D2583

*4 : ST values based on conversion

*5 : Cure condition for HDT 24 hours at room temperature then 2 hours at 105°C

Notice in Use:

1. If IK300 is blended with cobalt salt promoters shelf life will be shortened. promoted IK300 must be used within three months.
2. The gel time of IK300 is affected primarily by catalyst concentration and temperature. The variation of cure characteristics may be caused by the variations of catalyst. Humidity pigment fillers and other additives it is recommended that the fabricators check the cure characteristic with a small quantity resin before proceeding for bulk production.
3. IK300 contains organic solvent (styrene), keep away from heat sparks and flames.
4. IK300 is a potentially reactive chemical please store it in dark and keep away from heat and direct sunshine.
5. Containers not completely emptied must be closed immediately after use.

PACKAGE:

Standard packing is 200 kg steel drum.