



Polyester Resin IK 600

Technical Data Sheet

Product Name : IK-600 is Unsaturated Polyester Resin .

Description : IK-600 is a Ortophetalic based polyester resin which has been specially developed for the manufacture of large GPR structure.

Properties and Application : laminate is prepared with this resin have excellent long term weather resistance and their high rigidity and strength are retained at ambient and elevated temperatures up to 90°C. Although laminates of outstanding mechanical and physical properties can be obtained merely by curing at ambient temperature for optimum properties some post curing is required. For marine applications where good heat resistance combined with long term water resistance are essential.

Typical properties of liquid resin.

Property ^{*1}	Value
Acid Value	27 ± 3 mgr KOH/gr
Appearance	Clear liquid
Solid content	63 ± 2 %
Viscosity ^{*2}	250 - 300 cps
Specific gravity	1.05 - 1.1 gr/cm ³
Gel time ^{*3}	10 – 13 min
Time to Peak	20 – 25 min
Peak exotherm	160 ± 5 °C
Shelf life	6 Month

*1 : measurement was obtained under 25^{0C}

*2 : LVT# 3-60 rpm (@) 25^{0C}

*3 : cobalt 10% , 0.1 phr MEKP A 60 , 1.5% (@) 25^{0C}



TYPICAL CLEAR CASTING PROPERTIES OF CURED

PROPERTY	ST ^{*4}	TEST METHOD
Tensile strength	50 ± 5 MPa	ASTM D638
Tensile modulus	2.2 – 2.0 Gpa	ASTM D638
Tensile elongation	3 – 4 %	ASTM D638
Flexural strength	90 – 100 Mpa	ASTM D790
Flexural modulus	3.0 - 3.2 Gpa	ASTM D790
Volume shrinkage	4 – 5 %	ASTM D2566
HDT ^{*5}	70 ± 5 °C	ASTM D648
Barcol Hardness	35 ± 3	ASTM D2583

*4 : ST values based on conversion

*5 : cure condition for HDT 24 hours at room temperature then 2 hours at 105^{0C}

Notice in Use and storage:

1. If IK600 is blended with cobalt salt promoters shelf life will be shortened. promoted IK600 must be used within three months.
2. The gel time of IK600 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. IK600 contains organic solvent (styrene), keep away from heat sparks and flames.
4. IK600 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.