



Polyester Resin IK-5000

Product Name: IK-5000 unsaturated polyester resin for wood coating.

Description: Paraffin – free, reactive unsaturated polyester clear coat for wood application.

Properties and application: This product is a transparent polyester clear coat particularly suitable for wood application. It has good filling covering power, good vertical adhesion and fast drying.

The product can be directly applied in one or two coats on woods that do not need insulation, the product can be over coated with transparent or pigmented top-coat of this product.

Typical properties of liquid resin.

Property ^{*1}	Value
Acid Value	30 ± 5 mgr KOH/gr
Appearance	Clear liquid
Solid content	68 ± 3 %
Viscosity ^{*2}	100 - 150 cps
Specific gravity	1.05 - 1.1 gr/cm ³
Gel time ^{*3}	10 – 13 min
Time to Peak	18 – 20 min
Peak exotherm	125 ± 5 °C
Shelf life	6 Month

*1 : Measurement was obtained under 25⁰C

*2 : LVT# 3-60 rpm (@) 25⁰C

*3 : Cobalt 10% , 0.1 phr MEKP A 60 , 1.5% (@) 25⁰C



TYPICAL CLEAR CASTING PROPERTIES OF CURED

PROPERTY	ST ^{*4}	TEST METHOD
Tensile strength	20 ± 5 MPa	ASTM D638
Tensile modulus	1.0 - 1.2 Gpa	ASTM D638
Tensile elongation	1 - 2 %	ASTM D638
Flexural strength	50 ± 5 Mpa	ASTM D790
Flexural modulus	1.5 – 2 Gpa	ASTM D790
Volume shrinkage	2 - 4 %	ASTM D2566
HDT ^{*5}	35 ± 5 °C	ASTM D648
Barcol Hardness	20 ± 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 IK5000 is blended with cobalt salt promoters shelf life will be shortened. promoted IK5000 must be used within three months.
2. The gel time of IK5000 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. IK5000 contains organic solvent (styrene), keep away from heat sparks and flames.
4. IK5000 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.