

Type of resin

Pre-promoted, thixotropic, non-wax.

Ortho type polyester resin.

Approved Certification = Lloyd's Register

Applications

POLYSTAR R120NT is specially designed for the production of reinforced plastics by the spray-up and hand lay-up technique for example boat hull, septic tank, water tank, etc. It has low peak exothermic temp and shrinkage rate.

Distinguishing characteristics

- Good physical properties
- Low shrinkage.
- Good wet out and air release
- Early development of Barcol Hardness.
- No gel-time drift.

Properties of liquid resin *1

	Units	Spec	Remarks
Specific gravity	25°C	1.08-1.12	
Viscosity	poise/25°C	5.0 – 5.5	#3, 60 rpm
Thix- index	-	2.5 - 3.0	6/60rpm
Acid value	mg-KOH/g	16 - 24	
Volatile content	%	38 - 46	
Gel time	min.	17 - 20	
Time to peak	min.	30 - 50	MEKPO 1.0 PHR
Peak Ex.temp	°C	120-150	at 25°C

*1. Properties reported in this bulletin are typical of those obtained in controlled laboratory tests and will vary in production conditions and adjustable to meet user's needs upon request.

Properties of cured resin *2

	Units	Results	Remarks
Tensile Strength	MPa	55-65	
Tensile Modulus	GPa	3.0-4.0	ASTM D 638
Elongation	%	2.0-3.0	
Flexural Strength	MPa	110-120	ASTM D 790
Flexural Modulus	GPa	3.5-4.0	
Barcol Hardness	-	42-46	ASTM D 2583
Heat Distortion Temp.	°C	65-70	ASTM D 648
Water absorption	%	0.1 ↓	ASTM D 570

*2. Thickness: 3 mm

Catalyst: 55% MEKPO 1.0 PHR

Post cure condition: 80°C *2hrs , 100°C *2hrs

Properties of laminating resin*3

	Units	Results	Remarks
Tensile Strength	MPa	100-110	
Tensile Modulus	GPa	6.5-7.5	ASTM D 638
Elongation	%	1.5-2.5	
Flexural Strength	MPa	200-220	ASTM D 790
Flexural Modulus	GPa	7.3-8.3	
Barcol Hardness	-	50-60	ASTM D 2583

*3. Thickness: 3 mm, G/F content : 33%

Catalyst: 55% MEKPO 1.0 phr

Post cure condition: 80°C* 2hrs , 100°C* 2hrs

Warranty

- 3 months from the date of manufactured.

(Do not leave the resin at the place of direct sunlight or heat.)