

1. Type

Non-promoted and Non-waxed, Vinylester type Resin

2. Use

POLYSTAR SR-825 is formulated for the production of Excellent Chemical Resistance and Heat Resistant.

3. Distinguishing Characteristics

- Excellent Chemical Resistance.
- Excellent Heat Resistance.
- Extremely fast wet out and roll out.
- Early development of Barcol Hardness.
- High Impact Strength.
- Excellent in Acid and Alkali Resistance.

4. Typical Properties: Liquid Resins *1

	Units	Spec	Remarks
Specific Gravity	25°C	1.03-1.07	
Viscosity	CPS/25°C	150 - 350	#2, 60 rpm
Thixotropic Index	-	-	6/60
Acid Value	mg-KOH/g	9 - 15	
Volatile Content	%	36 - 46	
Gel-Time	min	16 - 20	P6O 0.5phr
Time to Peak	min	22 - 30	MEKPO 1.0 phr
Peak Ex.Temp	°C	130-150	at 25°C

*1. Values are representative.

Specification limits are available upon request.

5. Typical Properties: Cured Resin *2

	Units	Results	Remarks
Tensile Strength	MPa	86.0	
Tensile Modulus	GPa	3.2	ASTM D 638
Elongation	%	4-5	
Flexural Strength	MPa	137	ASTM D 790
Flexural Modulus	GPa	4.3	
Barcol Hardness	-	42	ASTM D 2583
Heat Distortion Temp.	°C	110	ASTM D 648
Water absorption	%	0.1	ASTM D 570

*2. Thickness : 3 mm

Catalyst : 55% MEKPO 1.0 phr

Post Cure : 100°C 2hrs , 120°C 2hrs

6. Typical Properties: Laminating Resin *3

	Units	Results	Remarks
Tensile Strength	MPa	140.0	
Tensile Modulus	GPa	11.7	ASTM D 638
Elongation	%	-	
Flexural Strength	MPa	162	ASTM D 790
Flexural Modulus	GPa	7.0	
Barcol Hardness	-	53	ASTM D 2583

*2. Thickness : 3 mm

Catalyst : 55% MEKPO 1.0 phr

Post Cure : 100°C 2hrs , 120°C 2hrs

7. The term of guarantee

- 3 month
- Do not leave the Resin at the place of direct sunlight or heat.

8. Caution Rules at Hardening

- The Gel-time is a change working conditions (ex. temperature, humidity). Please adjust amount of hardener & promoter according to working conditions, before use.
- The hardener amount is appropriate 1.0 percent of resin for suitable hardening.

- As hardening can be delayed according to work temperature, you should use it in proper temperature.

9. Caution Rules at Use

- Keep it at the place that can cut off heat, light. Please pay attention to firearms.
- As a hardener can explode, Please keep it at the place that can avoid the heat, a shock, A direct sunlight.
- If hardener and promoter come directly in contact, they can explode. You should not keep together at all it.
- Put on gloves and a mask when you work.
- Ventilate a workplace at any time.
- After use, residual resin should seal.
(Water, dust get into the resin or Styrene monomer evaporates, and the resin can be degenerated.)
- Styrene uses below 3percents in order to adjust viscosity.
- Please use the amount that use is possible only within work time.
- If the resin or a hardener get into worker's eyes, Please wash eyes immediately more than 15 minutes with running water and get from prescription of a doctor.