

ES-2500 A

General Purpose Polyester

DESCRIPTION AND BASIC PROPERTIES

ES-2500 A is an o-phthalic based, medium reactivity unsaturated polyester resin. It can be used for FRP applications. Its mechanical properties and resistance to weather is very good. It is used for FRP applications and the production of corrugated sheets, modular cabins, boats, tanks, vans, water tank, shower cabin, car bumper, panel building structures, etc.

APPLICATION METHODS	CHEMICAL STRUCTURE
Hand lay-up Spray-up	Acid: Ortophtalic Acceleration: Yes Reactivity: Medium

PROPERTIES OF LIQUID FORM

	UNIT	VALUE	METHOD
Appearance	-	Clear, yellowish	-
Viscosity ¹	cp	140 ± 20	ISO 2555
Monomer Content	%	36 ± 2	ISO 3251
Density	g/cm ³	1.12±0.02	ISO 1675
Acid Number	mg KOH/g	25 ± 3	ISO 2114
Gel Time ²	min	7 ± 1	ISO 584
Shelf Life	month	6	-

¹ Brookfield DV II, 25°C, 3 spd, 10 rpm

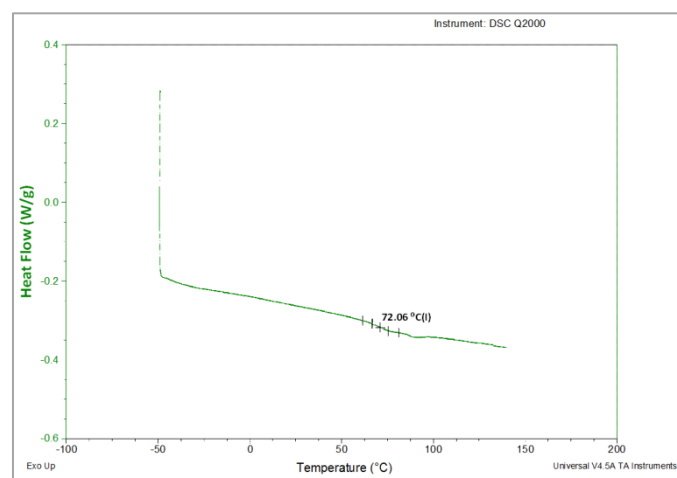
² 25°C, 2 ml MEK-P(Butanox M60) for 100 g sample

MECHANICAL PROPERTIES OF CURED RESIN

	UNIT	VALUE ¹	METHOD
Tensile Strength	MPa	60 ± 6	ASTM D638
Tensile E-Modulus	GPa	3.2 ± 0.3	ASTM D638
Strain at Fracture	%	6.0 ± 0.8	ASTM D638
Elongation At Break	%	7.0 ± 0.7	ASTM D638
Flexural Strength	MPa	100 ± 10	ASTM D790
Flexural E-Modulus	GPa	3.0 ± 0.3	ASTM D790
Heat Deflection Temperature (HDT) ²	°C	50 ± 5	ISO 75 A
Barcol Hardness	Barcol	40 ± 5	ASTM D2583
Glass Transition Temperature(Tg)	°C	75 ± 5	ISO 11357-2
Impact Strength	Kj/m ²	11 ± 2	ISO 180

¹ For fully cured resin, curing Schedule- 24 hrs at 20°C, 4 hrs at 90°C

² Curing Schedule- 24 hrs at 20°C, 4 hrs at 90°C, 3 hrs at 120°C



Differential Scanning Calorimetry (DSC)
Determination of Glass Transition Temperature (Tg)

STORAGE CONDITIONS

It should be stored in a dry, clean and cool place (15-25 ° C) in closed packages. The shelf life of the product is valid for this temperature range and it should not be forgotten that it will shorten at high temperatures. Products with the same charge number and date must be stored together. Another factor that affects the life of unsaturated polyester resins containing styrene is sunlight. Styrene must be polymerized in the sunlight and products that are considered to shorten the life of the product should be avoided from direct sunlight contact.

MORE INFORMATION

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*** This information has been prepared by considering the general conditions. Problems arising due to inadequacy of information ESKİM A.Ş. is not responsible.**