# ES – 6000 ISO / NPG BASED ACRYLIC MODIFIED GELCOAT PRODUCT TECHNICAL DATA SHEET

### **Description and Basic Properties**

ES- 6000 has high resistance to chemicals scratch, impact and thermal shocks. It doesn't show any cracking and fatigue on heat differences and it's flexible. It can be used in every composite application, where the atmospheric and hydrolytic resistance is important besides chemical and mechanical resistance. It gives very light colored and non-yellowing, nonmatting or fading products in atmospheric conditions for very long use time. It's used for producing kitchen counter-tops, sinks, wash basins, chemical tanks and crafts. Our gelcoat polyester used in the production of ES-6000 is approved by Lloyd's Register. In addition, this gelcoat has a gelcoat alternative that provides protection with antimicrobial technology.

#### **Chemical Structure**

ISO / NPG Acceleration : Yes Modification : Acrylic

## **Properties of Liquid Form**

		Value			
	Unit	Spray Type	Method		
Viscosty <sup>1</sup>	ср	10000 ± 1500 (5 rpm)			
		2000 ± 500 (50 rpm)	ISO 2555		
Monomer Content	%	40 ± 3	ISO 3251		
Density	g/cm³	1.09 ± 0.02	ISO 1675		
Gel Time <sup>2</sup>	min	15 ± 2	ISO 2535		
Shelf Life	month	6	-		
<sup>1</sup> Brookfield DV II, 25°C, 4 spd for spray type					
<sup>2</sup> 25°C, 1.0 mL MEK-P(Butanox M60) for 100 g sample					

All the information provided in this data sheet is believed to be true and accurate but no guarantee and warrantly is provided for mechanical & liquid composition. ESKİM A.Ş. does not take responsility for any inadequacies that may occur due to improper storage, handling and / or application.



### **Mechanical Properties of Cured Resin**

	Unit	Value <sup>1</sup>	Method
Tensile Strength	MPa	70 ± 5	ASTM D638
Strain at Fracture	%	4.2 ± 0.4	ASTM D638
Elongation at Break	%	2.5 ± 0.2	ASTM D638
Flexual Strength	MPa	120 ± 10	ASTM D790
Heat Deflection Temperature (HDT) <sup>2</sup>	° C	90 ± 5	ISO 75 A
<b>Barcol Hardness</b>	Barcol	45 ± 5	ASTM D2583

<sup>&</sup>lt;sup>1</sup>For fully cured resin, curing Schedule – 24 hrs at 20° C, 4 hrs at 90° C <sup>2</sup>Curing Schedule – 24 hrs at 20° C, 4 hrs at 90° C, 3 hrs at 120° C

## **Storage Conditions**

It should be stored in a dry, clean and cool place (15-25  $^{\circ}$  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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