

ES-1090

ISO/NPG Solid Surface Casting Type Polyester

DESCRIPTION AND BASIC PROPERTIES

ES-1090 is a pre-accelerated, ISO/NPG based and MMAK modified polyester resin. It has excellent resistance to the external conditions with its medium reactivity. When it is filled with ATH and granular particles naturally looking granite products are obtained. By courtesy of its high performance, the materials such as the main interior design decoration products, kitchen-fast food counters etc. can be produced allowing the casting without gelcoat.

APPLICATION METHODS	CHEMICAL STRUCTURE
Hand lay-up Casting	Acid: ISO/NPG Acceleration: Yes Reactivity: Medium Modification: MMAK

PROPERTIES OF LIQUID FORM

	UNIT	VALUE	METHOD
Appearance	-	Transparent	-
Viscosity¹	cp	1050 ± 100	ISO 2555
Monomer Content	%	38 ± 2	ISO 3251
Density	g/cm ³	1.15±0.02	ISO 1675
Acid Number	mg KOH/g	19 ± 3	ISO 2114
Gel Time²	min	10 ± 1	ISO 584
Shelf Life	month	4	-

¹Brookfield DV II, 25°C, 3 spd, 10 rpm
²25°C, 1,5 ml MEK-P(Butanox M50) for 100 g sample

MECHANICAL PROPERTIES OF CURED RESIN

	UNIT	VALUE ¹	METHOD
Tensile Strength	MPa	135 ± 10	ASTM D638
Tensile E-Modulus	GPa	4.4 ± 0.4	ASTM D638
Strain at Fracture	%	4.0 ± 0.4	ASTM D638
Elongation At Break	%	1.8 ± 0.2	ASTM D638
Flexural Strength	MPa	70 ± 5	ASTM D790
Flexural E-Modulus	GPa	5.0 ± 0.5	ASTM D790
Heat Deflection Temperature (HDT)²	°C	70 ± 2	ISO 75 A
Impact Strength	Kj/m ²	14 ± 2	ISO 180

¹For fully cured resin, curing Schedule- 24 hrs at 20°C, 4 hrs at 90°C
²Curing 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 ° 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.