

EN Product Information

Elan-tech®

EC 147 /W 147

100:45

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Resin
EC 147

Hardener
W 147

Mixing ratio by weight
100:45

Application: Coatings boats wood or anti-osmosis treatment. Surfaces primerization.

Processing: Brush application or by rolling.

Description: Two component epoxy system. Low viscosity. It is possible to use the mixing ratio of 100/50 without any substantial changes of the characteristic of the cured product.

SYSTEM SPECIFICATIONS

Resin

Viscosity at:	25°C	IO-10-50 (EN13702-2)	mPas	450	650
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Hardener

Viscosity at:	25°C	IO-10-50 (EN13702-2)	mPas	400	600
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TYPICAL SYSTEM CHARACTERISTICS

Processing Data

Resin Colour				Pale/yellow
Hardener Colour				Pale/yellow/Red
Mixing ratio by weight		for 100 g resin	g	100:45
Mixing ratio by volume		for 100 ml resin	ml	100:50
Density	25°C Resin	IO-10-51 (ASTM D 1475)	g/ml	1,13 1,17
Density	25°C Hardener	IO-10-51 (ASTM D 1475)	g/ml	1,00 1,03
Pot life	25°C (40mm;100ml)	IO-10-53 (*)	min	20 25
Exothermic peak	25°C (40mm;100ml)	IO-10-53 (*)	°C	155 170
Initial mixture viscosity at:	25°C	IO-10-50 (EN13702-2)	mPas	500 650
Gelation time	25°C (15ml;6mm)	IO-10-73 (*)	h	3 4
Demoulding time	25°C (15ml;6mm)	(*)	h	12 18
Post-curing	60°C	(**)	h	(15)
Maximum recommended thickness			mm	0,5-1,0

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TYPICAL CURED SYSTEM PROPERTIES

Properties determined on specimens cured: 24 h TA + 15 h 60°C

Colour			Pale yellow	
Density 25°C	IO-10-54 (ASTM D 792)	g/ml	1,08	1,12
Hardness 25°C	IO-10-58 (ASTM D 2240)	Shore D/15	87	91
Glass transition (Tg)	IO-10-69 (ASTM D 3418)	°C	65	70
Water absorption (24h RT)	IO-10-70 (ASTM D 570)	%	0,10	0,20
Water absorption (2h 100°C)	IO-10-70 (ASTM D 570)	%	0,70	0,90
Flexural strength	IO-10-66 (ASTM D 790)	MN/m ²	80	90
Maximum strain	IO-10-66 (ASTM D 790)	%	4	6
Strain at break	IO-10-66 (ASTM D 790)	%	7	12
Flexural elastic modulus	IO-10-66 (ASTM D 790)	MN/m ²	2.500	3000
Tensile strength	IO-10-63 (ASTM D 638)	MN/m ²	55	70
Elongation at break	IO-10-63 (ASTM D 638)	%	6	8

IO-00-00 = Elantas Italia's test method. The correspondent international method is indicated whenever possible.

nd = not determined na = not applicable RT = TA = laboratory room temperature (23±2°C)

Conversion units: 1 mPas = 1 cPs 1MN/m² = 10 kg/cm² = 1 MPa

(*) for larger quantities pot life is shorter and exothermic peak increases

(**) the brackets mean optionality

(***) The maximum operating temperature is given on the basis of laboratory information available being it function of the curing conditions used and of the type of coupled materials. For further possible information see post-curing paragraph.

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Instructions: 1) Surface preparation: on wood a light paper blasting is generally enough; on polyester or two component primers the surface must be paper blasted before the application; on metals the surfaces must be sand-blasted and the primer or the stucco must be applied within 2 hours to avoid the oxidation of the surface. 2) Pay attention to the temperature of the support that must be higher than dew-point to avoid the condensation of moisture between layers. 3) Work in a shade area protected from rain or dew, well ventilated and at temperature higher than 15°C. 4) Apply the fresh product on gelled material or fresh product on cured material that has been paper blasted.

Curing / Post-curing: Normally the post-curing is not necessary.

Storage: Epoxy resins and their hardeners can be stored for two years in the original sealed containers stored in a cool, dry place.

Handling precautions: Refer to the safety data sheet and comply with regulations relating to industrial health and waste disposal.

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The information given in this publication is based on the present state of our technical knowledge but buyers and users should make their own assessments of our products under their own application conditions.