

**EN Product Information**

Elan-tech®

EC 254LB/W 254 N

100:50

**2-component epoxy system protected with UV filters**

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Resin  
**EC 254LB**

Hardener  
**W 254 N**

Mixing ratio by weight  
**100:50**

**Application:** Transparent coating of surface finishing composite parts in front.

**Processing:** Application by brush. Room temperature curing.

**Description:** Two component unfilled epoxy system, fluid. High reactivity. Good resistance towards UV. The cured material doesn't show residual greasiness. The system is protected with UV filters for improved resistance to yellowing. Can be painted with transparent varnish containing UV filters.

### SYSTEM SPECIFICATIONS

#### Resin

Viscosity at:	25°C	IO-10-50 (EN13702-2)	mPas	800	1100
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#### Hardener

Viscosity at:	25°C	IO-10-50 (EN13702-2)	mPas	60	120
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### TYPICAL SYSTEM CHARACTERISTICS

#### Processing Data

Resin Colour				Light/blue
Hardener Colour				Colourless
Mixing ratio by weight		for 100 g resin	g	100:50
Mixing ratio by volume		for 100 ml resin	ml	100:57
Viscosity 25°C Resin		IO-10-50 (EN13702-2)	mPas	800 1100
Viscosity at: 25°C Hardener		IO-10-50 (EN13702-2)	mPas	60 120
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	0,99 1,03
Pot life 25°C (40mm;100ml)		IO-10-53 (*)	min	15 25
Exothermic peak 25°C (40mm;100ml)		IO-10-53 (*)	°C	175 190
Initial mixture viscosity at: 25°C		IO-10-50 (EN13702-2)	mPas	300 500
Gelation time 25°C (15ml;6mm)		IO-10-73 (*)	h	2 3
Demoulding time 25°C (15ml;6mm)		(*)	h	10 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**

Machinability			Excellent	
Density 25°C	IO-10-54 (ASTM D 792)	g/ml	1,06	1,10
Hardness 25°C	IO-10-58 (ASTM D 2240)	Shore D/15	85	89
Glass transition (Tg)	IO-10-69 (ASTM D 3418)	°C	65	70
Water absorption (24h RT)	IO-10-70 (ASTM D 570)	%	0,08	0,10
Water absorption (2h 100°C)	IO-10-70 (ASTM D 570)	%	0,80	1,00
Max recommended operating temperature	(***)	°C	60	
Flexural strength	IO-10-66 (ASTM D 790)	MN/m <sup>2</sup>	75	85
Maximum strain	IO-10-66 (ASTM D 790)	%	4,0	6,0
Strain at break	IO-10-66 (ASTM D 790)	%	>	15
Flexural elastic modulus	IO-10-66 (ASTM D 790)	MN/m <sup>2</sup>	2.200	2.700
Tensile strength	IO-10-63 (ASTM D 638)	MN/m <sup>2</sup>	45	55
Elongation at break	IO-10-63 (ASTM D 638)	%	5,0	7,0
Compressive strength	IO-10-72 (ASTM D 695)	MN/m <sup>2</sup>	55	65

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/m<sup>2</sup> = 10 kg/cm<sup>2</sup> = 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:** Verify and when necessary, homogenize the components before use. Add the appropriate quantity of hardener to the resin, mix carefully. Avoid air trapping.
- Curing / Post-curing:** Post curing is always advisable for RT curing systems in order to stabilize the component and to reach the best properties. It is necessary when the component works at a high temperature. Post cure the tool as stated in the table, increasing gradually 10°C/hour. Cool it down slowly. Users should evaluate the best conditions of curing or post-curing depending on the component size and shape. For big size components decrease the thermal gradient and increase the post-curing time. In the case of thin layer applications and composites, post cure on the jig.
- Storage:** Epoxy resins and their hardeners can be stored respectively for two years and one year in the original sealed containers stored in a cool, dry place. The hardeners are moisture sensitive therefore it is good practice to close the vessel immediately after each use.
- 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.