

EN

Preliminary Technical Data Sheet

**Elan-tech®****EC 255 TIX LY/HR 8700**

100:40

2K unfilled epoxy adhesive

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## Product description

- Easy to spread semi flowable adhesive
- Translucent
- Medium open time
- Good resistance to yellowing

## Areas of application

Bonding of heterogeneous materials like decorative elements on honey comb panels, marble and stones, ceramic elements.

## Processing methods

Easy application by hand, with spatula or by dispensing machines. To be applied on dry and clean substrate. Curing at room or moderate temperature (45 °C). Pretreatment of the surface might improve the adhesion results. The additive Y 23 might be useful for materials which are difficult to dry.

## Curing/Post-curing

Post-curing is always advisable for Room Temperature 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.

## Storage and stability

Epoxy resin and its amine based hardener can be stored respectively for one year and 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.

## Sales specifications

### EC 255 TIX LY

Properties	Conditions	Test Method	Value	M/U
Viscosity	25 °C	IO-10-95 (ISO 3219)	300.000 ÷ 500.000	mPa·s

### HR 8700

Properties	Conditions	Test Method	Value	M/U
Viscosity	25 °C	IO-10-50 (ISO 3219)	30 ÷ 70	mPa·s

## Typical product properties

### EC 255 TIX LY

Properties	Conditions	Test Method	Value	M/U
Colour		--	Opalescent	
Viscosity	25 °C	IO-10-95 (ISO 3219)	300.000 ÷ 500.000	mPa·s
Density	25 °C	IO-10-51 (ASTM D 1475)	1,11 ÷ 1,15	g/ml

### HR 8700

Properties	Conditions	Test Method	Value	M/U
Colour		--	Colourless	
Viscosity	25 °C	IO-10-50 (ISO 3219)	30 ÷ 70	mPa·s
Density	25 °C	IO-10-51 (ASTM D 1475)	0,99 ÷ 1,03	g/ml

## Typical system properties

Properties	Conditions	Test Method	Value	M/U
Mix Ratio by weight		--	100 : 40	g
Mix Ratio by volume		--	100 : 45	ml
Initial mixture viscosity	25 °C	IO-10-50 (ISO 3219)	40000 ÷ 60000	mPa·s
Pot life	25 °C - 40 mm - 100 ml	IO-10-53	13 ÷ 20	min
Gel time (Tack Start/End)	25 °C - 1 mm - Tack End	IO-10-88 (ASTM D 5895-03)	85 ÷ 95	min
Setting time	25 °C - 0,1 mm	(*)	220 ÷ 240	min
Suggested curing cycle		--	7 days at RT	

## Typical cured system properties

Properties	Conditions	Test Method	Value	M/U
Specimens curing cycle		--	7 days at RT	
Colour		--	White	
Density (solid)	25 °C	IO-10-54 (ASTM D 792)	1,10 ÷ 1,14	g/ml
Hardness	25 °C	IO-10-58 (ASTM D 2240)	68 ÷ 72	Shore D/15
Glass Transition (Tg)	7 days at RT	IO-10-69 (ASTM D 3418)	43 ÷ 49	°C
Maximum Tg	16 h 40 °C	IO-10-69 (ASTM D 3418)	63 ÷ 70	°C
Water absorption (24 h RT)		IO-10-70 (ASTM D 570)	0,27 ÷ 0,40	%
Water absorption (2 h 100 °C)		IO-10-70 (ASTM D 570)	0,45 ÷ 0,55	%
Linear thermal exp. (Tg -10 °C)		IO-10-71 (ASTM E 831)	89 ÷ 98	ppm/°C
Linear thermal exp. (Tg +10 °C)		IO-10-71 (ASTM E 831)	120 ÷ 140	ppm/°C

IO-00-00 = Elantas Europe internal 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 1 MN/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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