

EN

Preliminary Technical Data Sheet

**Elan-tech®****AS 300/AW 300**

100:100

Cartridges kit ADH

2K unfilled epoxy adhesive

**ELANTAS Europe Sales offices:**

Collecchio (PR) 43044 - Italy  
Strada Antolini n° 1 loc. Lemignano  
Tel +39 0521 304777 Fax +39 0521 804410

Hamburg 20539 - Germany  
Großmannstrasse. 105  
Tel +49 40 78946 0 Fax +49 40 78946 349

[info.elantas.europe@altana.com](mailto:info.elantas.europe@altana.com)  
[www.elantas.com/europe](http://www.elantas.com/europe)



## Product description

- Easy to use by hand or cartridges
- Gelly aspect with optimal sag resistance
- Convenient mix ratio 1:1
- Very fast curing
- Low shrinkage

## Areas of application

Universal adhesive for natural stones, metals, wood, ceramics and various composite materials, including plastic sensitive to solvents. To be tested the adhesion to polyolefin especially in case of application with frequent high humidity conditions.

## Processing methods

Application by hand, cartridge or dispensing machine. Convenient mix ratio 1:1. To be applied on dry and clean substrate. Curing at room temperature or directly at 40°C. Pretreatment of the surface might further improve the adhesion result.

## 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

Unfilled epoxy resin and its amine based hardener can be stored for one year in the original sealed containers in a cool, dry place. The hardener is moisture sensitive therefore it is good practice to close the container immediately after each use.

## Handling precautions

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

## Typical product properties

### AS 300

Properties	Conditions	Test Method	Value	M/U
Colour		--	Milky white/Black	
Viscosity	25 °C	IO-10-50 (ISO 3219)	280000 ÷ 420000	mPa·s
Density	25 °C	IO-10-51 (ASTM D 1475)	1,13 ÷ 1,17	g/ml

### AW 300

Properties	Conditions	Test Method	Value	M/U
Colour		--	Milky white	
Viscosity	25 °C	IO-10-50 (ISO 3219)	240000 ÷ 370000	mPa·s
Density	25 °C	IO-10-51 (ASTM D 1475)	1,13 ÷ 1,17	g/ml

## Typical system properties

Properties	Conditions	Test Method	Value	M/U
Mix Ratio by weight		--	100 : 100	g
Mix Ratio by volume		--	100 : 100	ml
Initial mixture viscosity	25 °C	IO-10-50 (ISO 3219)	na	mPa·s
Gel time (manual test)	25 °C - 2 ml - 2 mm	IO-10-73 (*)	160 ÷ 190	s
Setting time	25 °C	(*)	5 ÷ 7	min
Suggested curing cycle		--	16 h 40 °C	

## Typical cured system properties

Properties	Conditions	Test Method	Value	M/U
Specimens curing cycle		--	16 h 40 °C	
Colour		--	Milky white / Black	
Density (solid)	25 °C	IO-10-54 (ASTM D 792)	1,14 ÷ 1,18	g/ml
Hardness	1 h 25 °C	IO-10-58 (ASTM D 2240)	78 ÷ 82	Shore A/15
Hardness	24 h 25 °C	IO-10-58 (ASTM D 2240)	58 ÷ 62	Shore D/15
Glass Transition (Tg)	24 h RT	IO-10-69 (ASTM D 3418)	18 ÷ 24	°C
Maximum Tg	16 h 40 °C	IO-10-69 (ASTM D 3418)	26 ÷ 32	°C
Water absorption (24 h RT)		IO-10-70 (ASTM D 570)	na	%
Water absorption (2 h 100 °C)		IO-10-70 (ASTM D 570)	na	%
Linear thermal exp. (Tg -10 °C)		IO-10-71 (ASTM E 831)	na	ppm/°C
Linear thermal exp. (Tg +10 °C)		IO-10-71 (ASTM E 831)	na	ppm/°C

## Typical mechanical properties in cured condition

Properties	Conditions	Test Method	Value	M/U
Specimens curing cycle		--	16 h 40 °C	
Lap Shear Strength (LSS)	Aluminium - 16 h 40 °C	IO-10-80 (ASTM D 1002)	18 ÷ 22	MPa
	Inox Steel AISI 316 - 16 h 40 °C		19 ÷ 23	MPa

IO-00-00/200-000-000 = 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 based on 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.

**Product of ELANTAS Europe.** Our advice given verbally or in writing is based on the present state of our technical knowledge, but is intended as information given without obligation, also with respect to any protective rights held by third parties. It does not relieve your own responsibility to check the products for their suitability to the purposes and processes intended and in accordance with the technical sheets of the products. The application usage and processing of the product are beyond our control and will completely fall into the scope of responsibility of buyers and users. Should there nevertheless be a case of liability from our side, this will be limited to any damage equivalent to the value of the merchandise delivered by us. Naturally, we assume responsibility for the unobjectionable quality of our products, as defined in our general terms and condition. Product conformity is guaranteed by properties defined in sales specification. Typical properties do not constitute part of the agreed product property or sales specification. Deviation from typical properties does not constitute non-conformity of the product. Typical properties are provided for general information purpose and as a guideline for the choice of the product; they are subject to variation related to i.e. curing cycles, specimen preparation, batch to batch variability, etc. unless specifically agreed with customers.