

EN Product Information

Elan-tech®

AS 52/AW 11 100:100

Cartridges kit ADH 52.11
Fast curing 2-components epoxy adhesive

ELANTAS EUROPE Sales offices:

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

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

info.elantas.europe@altana.com
www.elantas.com

Structural adhesive	Resin	Hardener	Mixing ratio by weight
	AS 52	AW 11	100:100
Cartridges kit	Cartridges kit ADH		Mixing ratio by volume
			100:100

Application: Transparent assembly of heterogenous materials. Filling and rapid retouching of cracks marble and granite. Rapid fixing of bushings for sanitaryware. Fast repair also at low temperature (close to 0°C). Adhesive for electrical components.

Processing: Spatula application or with mixing/dispensing devices. Apply within a short time. Room temperature curing. Final properties and maximum resistances are achieved with full curing, after 24 hours. Good bonding is however achieved within 2 hours; the final part can be handled after 30 minutes. If the curing is carried on at high temperature the best performance is obtained with bonding at 80°C for 360 minutes.

Description: Two components unfilled epoxy system. Solvent free. Fast and rigid. Excellent resistance to bases, good to diluted acids, poor to solvents. The system is RoHS compliant (European directive 2002/95/EC) and the new RoHS Directive 2011/65/EU (RoHS 2) entered into force on 21 July 2011 and requires Member States to transpose the provisions into their respective national laws by 2 January 2013.

SYSTEM SPECIFICATIONS

Resin

Viscosity at:	25°C	IO-10-50 (ISO3219)	mPas	5.000	10.000
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Hardener

Viscosity at:	25°C	IO-10-50 (ISO3219)	mPas	10.000	18.000
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TYPICAL SYSTEM CHARACTERISTICS

Processing Data

Resin Colour				Pale/yellow
Hardener Colour				Pale/yellow
Mixing ratio by weight		for 100 g resin	g	100:100
Mixing ratio by volume		for 100 ml resin	ml	100:100
Density	25°C Resin	IO-10-51 (ASTM D 1475)	g/ml	1,14 1,18
Density	25°C Hardener	IO-10-51 (ASTM D 1475)	g/ml	1,11 1,15
Pot life	25°C 20 g	IO-10-73 (*)	min	3 4
Gelation time	25°C (2mm)	IO-10-73 (*)	min	4 5
Setting time	25°C 0,1 mm	(*)	min	5 - 10

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TYPICAL CURED SYSTEM PROPERTIES

Properties determined on specimens cured: 24 h TA

Density	25°C	IO-10-54 (ASTM D 792)	g/ml	1,13	1,17
Glass transition (Tg)	24h RT	IO-10-69 (ASTM D 3418)	°C	40	45
Shear strength by tension:					
-	Inox steel AISI 316 cured 30min RT (tested RT)	IO-10-80 (ASTM D 1002)	MPa	4,5	5,5
-	Inox steel AISI 316 cured 2h RT (tested RT)		MPa	7,0	9,0
-	Inox steel AISI 316 cured 24h RT (tested RT)		MPa	8,0	10,0
-	Inox steel AISI 316 cured 24h 5°C (tested RT)		MPa	7,5	9,5

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.

Kit in cartucce ADH 52.11

- Istruzioni:** Preparare le superfici da incollare eliminando la polvere, l'umidità, lo sporco e le parti friabili o incoerenti. Generalmente e' sufficiente un'abrasione meccanica o sabbatura seguita da uno sgrassaggio con acetone. Nell'incollaggio di pre-pregs non occorre nessuna preparazione specifica. Aggiungere al componente resina l'opportuno quantitativo di indurente e mescolare accuratamente. Avvalersi allo scopo, di miscelatori meccanici lenti o impastare manualmente con una spatola. L'adesivo, appena applicato, è sensibile all'umidità e all'anidride carbonica: ricoprire quindi la giunzione al più presto oppure indurire a caldo. La pulizia finale degli attrezzi può essere effettuata con normale diluente nitro, acetone, ecc.
- Indurimento/Post-indurimento:** Il post-indurimento, sempre consigliato per stabilizzare e conferire le migliori caratteristiche, e' necessario quando il manufatto opera in temperatura.
- Stoccaggio:** Le resine epossidiche ed i relativi indurenti sono conservabili per due anni nei contenitori originali sigillati mantenuti in ambiente fresco ed asciutto.
- Precauzioni:** Consultare la scheda di sicurezza ed attenersi alle disposizioni relative all'igiene industriale ed allo smaltimento dei rifiuti.

data di emissione	Settembre	2007
revisione n° 03	Agosto	2019

Tutte le informazioni fornite nel presente bollettino sono considerate accurate al meglio delle conoscenze tecniche disponibili ma è a cura dell'utilizzatore la verifica dell'idoneità del prodotto per la specifica applicazione considerata.

Cartridges kit ADH 52.11**ELECTRICAL PROPERTIES OF THE FINAL SYSTEM****Properties determined on specimens cured: 24 hrs RT**

Test	Method	U.M.	AS52/AW11
Dielectric constant	IO-10-59 (ASTM D 150)		3,8 - 4,8
Loss factor	IO-10-59 (ASTM D 150)	$\cdot 10^{-3}$	40 - 50
Volume resistivity	IO-10-60 (ASTM D 257)	Ohm \cdot cm	$5 - 9 \cdot 10^{14}$
Dielectric strength	IO-10-61 (ASTM D 149)	KV/mm	20 - 22