

PRODUCT DATA SHEET

ADEKIT A 290 / H 6290 POLYOL / H6280 ISOCYANATE

POLYURETHANE ADHESIVE

DESCRIPTION

Bonding of parts in large series, bonding and repairing of body elements, bonding and repairing of composite parts

PROPERTIES

- 2 component room temperature cure polyurethane adhesives
- Non sagging paste product suitable for vertical applications and to fill irregular joints
- Excellent vibrations, impacts and noise damping
- Excellent behaviour at low temperatures
- Product adapted to assemblies involving dissimilar materials
- Excellent mechanical performances and ageing
- Excellent strength to dynamic loads (vibrations and impacts)
- Product adapted to stringent ageing and aggressive environments

PHYSICAL PROPERTIES

Composition	POLYOL	ISOCYANATE	MIX	METHOD
Mix ratio by weight	130	100		
Mix ratio by volume at 25 °C	100	100		
Colour	Black (BK) Beige (BG)	Beige	Black (BK) Beige (BG)	
Density at 25 °C ^(KP)	1.47	1.17	-	LT-020
Density of cured product at 23 °C	-	-	1.34	ISO 2781
Viscosity at 25 °C ^(KP) (Pa.s)	40 – 90 300 – 600			LT-063 / 15 s ⁻¹ LT-063 / 1.5 s ⁻¹ LT-001
Pot life on 50 g at 23°C ^(KP) (min)	-	-	3	LT-002-B
Open time on 7 mm bead at 23 °C (min)	-	-	3	LT-006-B

(KP) Key properties. These values are enclosed in Certificate of Analysis.

MECHANICAL PROPERTIES ⁽¹⁾

Hardness (Shore D)	48	ISO 868
Tensile strength (MPa)	13	ISO 527
Elongation at break (%)	95	ISO 527
Young Modulus (MPa)	40	ISO 527
Recommended use temperature (°C)	15 – 25	

Working temperature ⁽²⁾	(°C)	-40 – 130	LT-006-B
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(1) Cured 16 hours at 70°C

(2) Working temperature is defined as the temperature at which product keeps 80% of its initial Lap Shear Strength after 1000 hours ageing at this temperature, value on Aluminium, measured at 23°C.

HANDLING TIME ⁽¹⁾

At 23 °C	(min)	10	
At 40 °C	(min)	7	LT-006-B
At 60 °C	(min)	4	

(1) Handling time is defined as the time needed to obtain Lap Shear Strength on Aluminium at 23°C, of 1 MPa.

MECHANICAL PROPERTIES ON ASSEMBLIES ⁽¹⁾

	LAP SHEAR STRENGTH AT 23°C (MPa)	METHOD
Aluminium 2017A (sandblasted)	Initial	16 CF
	After wet cataplastm 7 days at 70°C /100% RH on Aluminium coated with Sika Advanced Resins Metal Primer	11 CF
	After wet cataplastm 7 days at 70°C / 100% RH	6 CF
	After 15 cycles D3 ⁽²⁾	13 CF
	After 3 weeks immersion in:	
	Motor oil at 70 °C	16 CF
	Hydrochloric acid (0.1 N)	13 CF
	Soda (0.1N)	9 CF
	Seawater	15 CF
	Gasoil	16 CF
Gas	16 CF	
Stainless Steel 304 (sandblasted)	Initial	16 CF
	After wet cataplastm 7 days at 70°C / 100% RH	11 AF/CF
Electro-galvanized Steel (sandblasted)		11 CF
Electro-galvanized Steel (acetone wipe)		14 AF/CF
ABS (Isopropanol + plastic primer 5069 Sika Advanced Resins)		6 SF
PC		7 SF
PVC (sandblasted)		7 SF
PMMA		5 SF
PA6E (sandblasted)		4 SCF

Composite SMC
(sanded)

7 DF

(1) Cured 16 hours at 70°C

(2) Cycle D3 : 16h at 40°C/95% RH + 3h at -20°C + 5h at 70°C/50% ± 5% RH, according to ISO 9142 standard.

CF : Cohesive Failure, AF : Adhesive Failure, SCF : Special Cohesive Failure, DF : Delamination Failure , according to EN ISO 10 365 Standard

FLOATING ROLLER PEEL STRENGTH AT 23°C

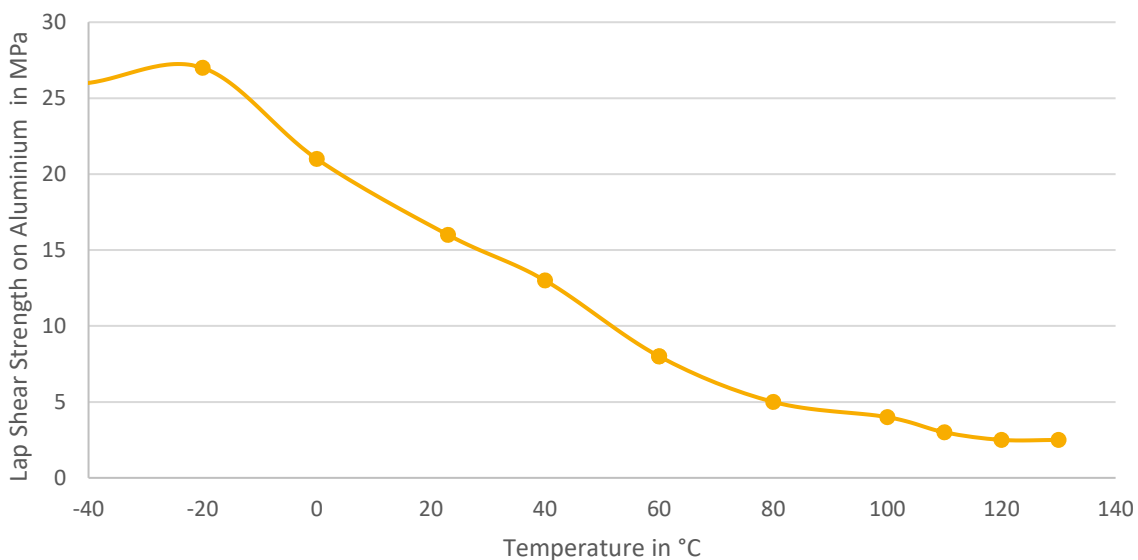
Aluminium 2017A
(sandblasted)

(kN/m)

12

ISO 4578

Lap Shear Strength on Aluminium versus Temperature



PROCESSING

- **Equipment:** ADEKIT A290 is packaged in 50 ml and 400 ml cartridges and requires a manual or pneumatic gun.
Please consult our technical department for applications needing a machine.
- **Substrate preparation:** The item to be bonded must be free of all dirt, oil or other foreign matter. A clean, dry surface is a must.
Consult our Technical Support about surface preparations.

HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products:

- Ensure good ventilation.
- Wear gloves, glasses and protective clothes.

For further information, please consult the Safety Data Sheet.

STORAGE CONDITIONS

Shelf life of **ADEKIT A290** is **9 months** in a dry place and in original unopened containers at a temperature between 15 and 25° C.

Shelf life of **ADEKIT H 6290 POLYOL** and **ADEKIT H 6280 ISOCYANATE** is **12 months** in a dry place and in original unopened containers at a temperature between 15 and 25° C.

PACKAGING

▪ A290 BK / 50 ml	Box of 12 cartridges
▪ A290 BK or BG / 400 ml	Box of 12 cartridges
▪ H 6290 BG Polyol	40 kg
▪ H 6290 BK Polyol	40 kg, 290 kg
▪ H 6280 Isocyanate	5 kg, 32 kg, 225 kg, 230 kg

FURTHER INFORMATION

The information herein is offered for general guidance only. Advice on specific applications is available on request from the Technical Department of Sika Advanced Resins. Copies of the following publications are available on request: Safety Data Sheets.

VALUE BASES

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

HEALTH AND SAFETY INFORMATION

For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

LEGAL NOTICE

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

CONTACT

SIKA DEUTSCHLAND GmbH
Stuttgarter Straße 139
72574 Bad Urach – GERMANY
Tel.: (+49) 7 125 940 492
Fax.: (+49) 7 125 940 401
E-mail: tooling@de.sika.com
Website: www.sikaadvancedresins.de

SIKA AUTOMOTIVE FRANCE S.A.S.
ZI des Béthunes - 15, Rue de l'Equerre
95310 Saint-Ouen-l'Aumône
CS 40444
95005 CERGY PONTOISE Cedex – FRANCE
Tel.: (+33) 1 344 034 60
Fax: (+33) 1 342 197 87
E-mail: advanced.resins@fr.sika.com
Website: www.sikaadvancedresins.fr

AXSON TECHNOLOGIES SPAIN, S.L.
Polígono Industrial Congost - Guardaagullés, 8
08520 LES FRANQUESES DEL VALLES – SPAIN
Tel.: (+34) 932 25 16 20
E-mail: spain@axson.com
Website: www.sikaadvancedresins.es

AXSON ITALIA S.R.L.
Via Morandi 15
21047 Saronno (Va) – ITALY
Tel.: (+39) 02 9670 2336
Fax: (+39) 02 9670 2369
E-mail: axson@axson.it
Website: www.sikaadvancedresins.it

AXSON UK Ltd
Unit 15 Studlands Park Ind. Estate
Newmarket Suffolk, CB8 7AU – UNITED KINGDOM
Tel.: (+44) 1638 660 062
Fax: (+44) 1638 665 078
E-mail: sales.uk@axson.com
Website: www.sikaadvancedresins.uk

SIKA AUTOMOTIVE SLOVAKIA s.r.o.
Tovarenska 49
95301 ZLATE MORAVCE – SLOVAKIA
Tel.: (+421) 376 422 526
Fax: (+421) 376 422 527
E-mail: axson.sk@axson.com
Web site: www.sikaadvancedresins.sk

SIKA ADVANCED RESINS US
30800 Stephenson Highway
Madison Heights, Michigan 48071 – USA
Tel.: (+1) 248 588-2270
Fax: (+1) 248 577-0810
E-mail: axsonmh@axson.com
Web site: www.sikaadvancedresins.us

SIKA AUTOMOTIVE MEXICO S.A. DE C.V.
Ignacio Ramírez #20
Despacho 202 Col. Tabacalera
C.P. 06030 CDMX – MEXICO
Tel.: (+52) 55 5264 4922
Fax: (+52) 55 5264 4916
E-mail: marketing@axson.com.mx
Website: www.sikaadvancedresins.mx

SIKA AUTOMOTIVE SHANGHAI CO. Ltd
N°53 Tai Gu Road
Wai Gao Qiao
Free Trade Zone, Pudong
200131 Shanghai – CHINA
Tel.: (+86) 21 5868 3037
Fax: (+86) 21 5868 2601
E-mail: marketing.china@axson.com
Website: www.sikaadvancedresins.cn

SIKA JAPAN Ltd
2-5-12 Onishi Okazaki Aichi
444-0871 – JAPAN
Tel.: (+81) 564 26 2591
Fax: (+81) 564 26 2593
E-mail: sales.japan@axson.com
Website: www.sikaadvancedresins.jp

AXSON INDIA Pvt. Ltd.
Office n°8, Building Symphony C - 3rd Floor
Range Hills Road
Bhosale Nagar
PUNE 411 020 – INDIA
Tel: (+ 91) 20 25 56 07 10
Fax: (+ 91) 20 25 56 07 12
E-mail: info.india@axson.com
Website: www.sikaadvancedresins.in