

DESCRIPTION

Bonding of bodywork, bonding of electronic components, bonding of metallic structures (racing vehicles, aeronautics), bonding of insert and composite structure.

PROPERTIES

- 2 component room temperature cure polyurethane adhesive
- Non sagging paste product suitable for vertical applications and to fill irregular joints
- Slow setting product adapted to cover and bond big surfaces
- 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
- Self extinguishing adhesive

PHYSICAL PROPERTIES				
Composition		POLYOL	ISOCYANATE	MIXED
Mix ratio by weight		100	72	
Mix ratio by volume at 25 °C		100	100	
Aspect		paste	paste	thixotrope paste
Colour		White to green ⁽¹⁾	translucent	White to green
Specific gravity at 25 °C (g/cm ³)	ISO 1675 : 1985	1.50	1.09	1.32
Pot life at 25 °C on 100 g (min)	Gel Timer TECAM	-	-	35
Open time (min)	-	-	-	40

(1) : due to the chemical nature while ageing color variation from beige to green can be observed but not detrimental to its performance

THERMAL AND MECHANICAL PROPERTIES (2)			
Hardness	ISO 868 : 2003	Shore A1	95
Tensile strength	ISO 527 : 1993	MPa	6
Elongation at break	ISO 527 : 1993	%	80
Glass transition temperature (tg)	ISO 11359 : 2002	°C	45
Coefficient of thermal expansion (CTE) (-40 °C to +40 °C)	ISO 11359: 1999	10 ⁻⁶ K ⁻¹	160
Working temperature	-	°C	-40; +80
Self extinguishing	UL 94	6 mm	VO
	FAR 25 Appendice F part 1	vertical test	Compliant

(2): Average values obtained on standard specimens / Hardening 2 hours at 80 °C

EQUIPMENT

ADEKIT 211 packaged in 50 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 and refer to the technical data sheet about surface preparations to choose adapted degreaser or cleaner.

MECHANICAL PROPERTIES ON ASSEMBLIES			
Lap shear strength on aluminium	ISO 4587 : 2003	MPa	10 CF(3)
Floating roller peel resistance	ISO 4578 : 2003	kN/m	9 CF
Lap shear strength after moist cataplasm 14 days at 75 °C	ISO 4587 : 2003	MPa	6 SCF
Lap shear strength after a thermal shock ageing cycle 21 cycles D3	ISO 4587 : 2003	Mpa	8 SCF
Lap shear strength after ageing in immersion for 3 weeks at 100 °C	ISO 4587 : 2003	MPa	8 SCF
Lap shear strength after 90 thermal cycles [-55 °C; + 125 °C]	ISO 4587 : 1997	MPa	8 CF
Lap shear strength after 7 humid heat cycles (according MIL STD 310 E method 507.3)	ISO 4587 : 2003	MPa	8 CF

- (1) Lap shear strength on aluminium 2017A etched in sulfochromic bath
 (2) Hardening conditions: 16 hrs at 70 °C + 48 hrs at room temperature
 (3) According to ISO 10365:1992 : CF = Cohesive failure, SCF = Superficial cohesive failure

HANDLING PRECAUTIONS

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

- ensure good ventilation
- wear gloves and safety glasses
- wear waterproof clothes

For further information, please consult the product safety data sheet.

RECOMMENDATIONS

- Remove the aluminum cap at the bottom just before use.
- Place the cartridge into the gun and drain the cartridge: extrude the product until the 2 parts come out simultaneously. It brings the 2 pistons at the same level and drain the air at the top of the cartridge, in order to ensure the right ratio.
- When the 2 parts come out simultaneously, place the mixer and fill it by extrusion. Throw out the first cm³.
- If the whole cartridge is not used, leave the mixer in place to protect from air and moisture. Store the cartridge away from moisture at a temperature between +15 °C and +25 °C. The mixer must be changed for the next use, and the first cm³ thrown out. The use of an opened cartridge within the next 7 days is recommended.

STORAGE CONDITIONS

Shelf life of ADEKIT A211 is 9 months stored in its original unopened packaging away from moisture at a temperature between +15 °C and +25 °C.

PACKAGING

A211/BG
12 cartridges

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The information contained in this technical data sheet result from research and tests conducted in our Laboratories under precise conditions. It is the responsibility of the user to determine the suitability of AXSON products, under their own conditions before commencing with the proposed application. AXSON guarantee the conformity of their products with their specifications but cannot guarantee the compatibility of a product with any particular application. AXSON disclaim all responsibility for damage from any incident which results from the use of these products. The responsibility of AXSON is strictly limited to reimbursement or replacement of products which do not comply with the published specifications