

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 large surfaces
- Excellent vibrations, impacts and noise damping
- Excellent behavior 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

		Polyol	Isocyanate	Mixed
Composition				
Mix ratio by weight		100	72	-
Mix ratio by volume – 77°F (25°C)		100	100	
Aspect		Thixotropic paste	Thixotropic paste	Thixotropic paste
Color		Beige	Translucent	Beige
Specific Gravity at 77°F (25°C)	ASTM D792	1.50	1.09	1.32
Pot life at 77°F (25°C) on 100 g (min)	Gel Timer TECAM	-	-	35
Open Time at 77°F (25°C) (min)				40

THERMAL AND MECHANICAL PROPERTIES

Hardness	ISO 868 : 2003	Shore D1/D15	50/45
Tensile strength	ISO 527 : 1993	psi (MPA)	870 (6)
Elongation at break	ISO 527 : 1993	%	6
Glass transition temperature (Tg)	ISO 11359 : 2002	°F (°C)	176 (80)
Coefficient of thermal expansion (CTE) -40°F to +104°F (-40°C to +40°C)	ISO 11359 : 2002	ppm/°F (°C)	89 (180)
Working temperature	-	°F (°C)	-40 – 176 (-40 – 80)
Self extinguishing	FAR 25, Appendix F, part 1	Vertical test	complies

Equipment

Adekkit A 211 is packaged in 50 ml cartridges and requires a manual or pneumatic gun for application.

SUBSTRATE PREPARATION

The items to be bonded must be free of all dirt, oil and other foreign matter. A clean, dry surface is a must. Consult our Technical Support staff and refer to the technical data sheet about preparations to choose an appropriate method.

MECHANICAL PROPERTIES ON ASSEMBLIES ⁽¹⁾			
Lap shear strength on aluminum	ISO 4587 : 2003	psi (MPa)	1,450 (10) CF
Floating roller peel resistance	ISO 4578 : 2003	lbf/in (kN/m)	51 (9) CF
Lap shear strength after moist cataplasm 14 days at 167°F (75°C)	ISO 4587 : 2003	psi (MPa)	870 (6) SCF
Lap shear strength after a thermal shock aging cycle 21 cycles D3	ISO 4587 : 2003	psi (MPa)	1,160 (8) SCF
Lap shear strength after aging in immersion for 3 weeks at 212°F (100°C)	ISO 4587 : 2003	psi (MPa)	1,160 (8) SCF
Lap shear strength after 90 thermal cycles -67°F – 257°F (-55°C – 125°C)	ISO 4587 : 1997	psi (MPa)	1,160 (8) CF
Lap shear strength after 7 humid heat cycles (according MIL STD 310 E method 507.3)	ISO 4587 : 2003	psi (MPa)	1,160 (8) CF

⁽¹⁾ Lap shear strength on aluminum 2017 A etched in sulfochromic bath, postcured 16 hours at 158°F (70°C) + 48 hours at room temperature

⁽²⁾ According to ISO 10365 : 1992 CF = cohesive failure; SCF = superficial cohesive failure

STORAGE CONDITIONS

Shelf life is 9 months in a dry place and in original unopened packaging at a temperature between 59 – 77°F (15 – 25°C).

HANDLING PRECAUTIONS

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

- Ensure good ventilation
- Wear gloves, safety glasses and impervious clothes.

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

GUARANTEE

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