

DESCRIPTION

Bonding inserts honey comb structures, bonding composite structure (aeronautics), bonding structures requiring good flame resistance

PROPERTIES

- 2 component high performance room temperature cured epoxy adhesive
- Self-extinguishing adhesive. FAR 25.853 classification (aeronautical application)
- Slow-setting product adapted to cover and bond wide surfaces
- Suitable for edgewise assemblies
- Excellent mechanical and thermal performances up to 100°C
- Product adapted to stringent ageing and aggressive environments

PHYSICAL PROPERTIES				
Composition		RESIN	HARDENER	MIXED
Mix ratio by weight		100	100	
Mix ratio by volume at 25°C		100	100	
Aspect		pasty liquid	paste	paste
Colour		white	beige	light beige
Viscosity at 25°C (Pa.s)	BROOKFIELD LVT	90	220	130
Specific gravity at 25°C (g/cm ³)	ISO 1675 : 1985	1.23	1.22	1.30
Pot life at 25°C on 100 g (min)	Gel Timer TECAM			37

THERMAL AND MECHANICAL PROPERTIES (1)				
Hardness		ISO 868 : 2003	Shore D1 / D15	83 / 80
Tensile modulus		ISO 527: 1993	MPa	40
Tensile strength		ISO 527 : 1993	MPa	-
Elongation at break		ISO 527 : 1993	%	5
Glass transition temperature (tg)		ISO 11359 : 2002	°C	61
Coefficient of thermal expansion (CTE) (-30°C à +60°C)		ISO 11359: 1999	10 ⁻⁶ K ⁻¹	74
Working temperature		-	°C	- 40 ; + 100

EQUIPMENT

ADEKIT A 171/H9971 is packaged in 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 and refer to the technical data sheet about surface preparations to choose adapted degreaser or cleaner.

MECHANICAL PROPERTIES ON ASSEMBLIES

Time to obtain 1 MPa lap shear strength at 25°C	ISO 4587 : 2003	hr	3hr 30
Time to obtain 50% final lap shear strength at 25°C	ISO 4587 : 2003	hr	19
Lap shear strength on aluminium	ISO 4587 : 2003	MPa	20CF(3)
Floating roller peel resistance (2)	ISO 4578 : 1997	kN/m	3 CF
Initial value lap shear strength on aluminium			20 CF(4)
Lap shear strength after moist cataplasm 15 days at 80°C	ISO 4587 : 2003	MPa	19.5 CF
Lap shear strength after ageing in immersion for 3 weeks: <ul style="list-style-type: none"> • motor oil at 70°C • hydrochloric acid (0.1 N) at 23°C • soda (0.1 N) at 23°C • seawater at 23°C • gasoil at 23°C • gas at 23°C 	ISO 4587 : 2003 ISO 175 : 1999	MPa	20.5 CF 21 CF 22 CF 23 CF 18CF 21CF
Lap shear strength after thermal ageing 3 weeks at 100°C	ISO 4587 : 2003	MPa	22 CF
Lap shear strength after 15 cycles Temperature/ Moisture (3D)	ISO 4587 : 2003	MPa	-

- (1) Lap shear strength on aluminium 2017A etched in sulfochromic bath
(2) Hardening conditions: 8 hrs at 80°C + 48 hrs at room temperature
(3) According to ISO 10365:1992 : CF = Cohesive failure,
(4) The value of 1 Mpa corresponds at the minimum necessary to handle assemblies

HANDLING PRECAUTIONS

It is recommended to use the product at a temperature between +18°C and +35°C. 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.

STORAGE CONDITIONS

Shelf life of ADEKIT A171/ H9971 is 12 months stored in its original unopened packaging at a temperature between +15°C and +25°C.

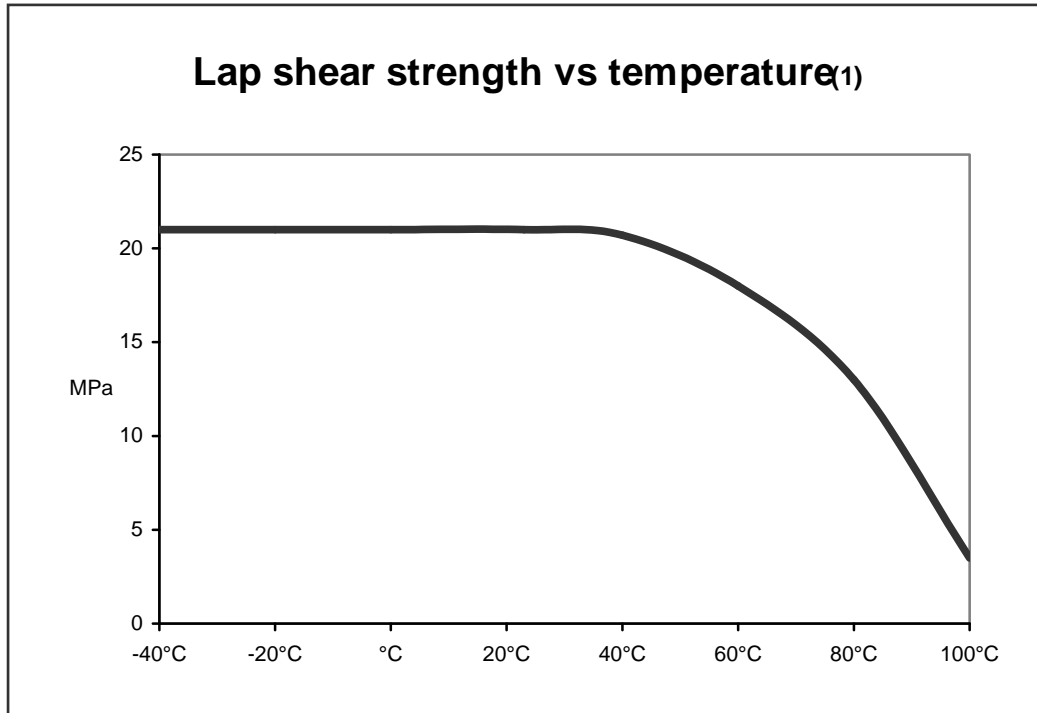
PACKAGING

A171 /400 12 cartridges	H 9971 (5 + 5) kg (25 + 25) kg
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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.

ANNEX



(1) Hardening conditions: 8 hrs at 80°C + 48 hrs at room temperature

THERMAL SHOCK TEST ACCORDING TO ISO 9142: 1993 NORM

D3 cycle

