

### APPLICATION

Bonding of sandwich panels (nomex, aluminum, foam...).

Bonding of panels made in wood, steel, aluminum.

Bonding of polyester, plastics.

### PROPERTIES

- 2 component polyurethane adhesive
- Good mechanical performances
- Application by hand or with a machine
- Manufacturing of large parts

<b>PHYSICAL PROPERTIES</b>					
Composition	POLYOL		ISOCYANATE		Method
	P4302	P4002	P4003	P4004	
Mix ratio by weight	100	20			
Mix ratio by volume at 25°C	100	28			
Color	Beige	Brown			
Viscosity at 25°C, mPa.s	42 000 <small>(AKP)</small>	125	20	225	BROOKFIELD LVT
Mix viscosity at 25°C, mPa.s	-	6 000	3 000	13 000 <small>(AKP)</small>	
Density at 25°C Density of cured product at 23°C	1,62 <small>(AKP)</small>	1,22	1,22	1,22	ISO 1675 ISO 2781
Pot life at 25°C on 120g, min	-	45	60	45 <small>(AKP)</small>	LT-002-B
Open time in thin layer film, min	-	60	80	60	LT-006-B

**(AKP): Axson Key Properties. These values are enclosed in the Certificate Of Analysis.**

<b>THERMAL AND MECHANICAL PROPERTIES <sup>(2)</sup></b>				
	P4002	P4003	P4004	Method
Hardness, shore D1	80	80	80	ISO 868
Tensile strength, MPa	15	10	20	ISO 527
Elongation at break, %	10	30	5	ISO 527
Young modulus, MPa	1 900	400	3 300	ISO 527
Working temperature, °C *	-40 ; +140	-40 ; +120	-40 ; +140	LT-006-B

(2) : cured 16h at 80°C

\* : 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 Aluminum, measured at 23°C.

# ADEKIT P4302 SYSTEM

## P4302 POLYOL

## P4002 / P4003 / P4004 ISOCYANATE

### POLYURETHANE ADHESIVE

HANDLING TIME				
	P4002	P4003	P4004	Method
at 23°C <sup>(AKP)</sup>	4 h	5 h	4 h 30	LT-006-B
at 50°C	2 h	2 h 30	2 h 30	
at 80°C	1 h	1 h	1 h	

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

### MECHANICAL PROPERTIES ON ASSEMBLY AT 23°C <sup>(1)</sup>

(1) : cured 16 h at 80°C

LAP SHEAR STRENGTH, MPa					
		P4002	P4003	P4004	Method
Aluminum 2017A sandblasted	at 23°C	18 CF	18 CF	17 CF	LT-006-B
	after wet cataplasme 7 days at 70°C/100% RH	15 CF	17 AF	11 CF	
	after 21 cycles D3*	18 CF	19 CF	19 CF	
Stainless Steel 304 sandblasted	at 23°C	21 CF	15 CF	17 CF	
	after wet cataplasme 7 days at 70°C/100% HR	18 CF	15 CF	17 CF	
	après 21 cycles D3*	21 CF	19 CF	20 CF	
Electro galvanized steel sandblasted	at 23°C	19 CF	20 CF	23 CF	
ABS <i>Isopropanol wiped and Plastic primer coated</i>	at 23°C	5 SF	5 SF	5 SF	
PC	at 23°C	5 SF	5 SF	5 SF	
PMMA	at 23°C	5 SF	5 SF	5 SF	
Polyester composite	at 23°C	12 DF	12 DF	12 DF	

### FLOATING ROLLER PEEL RESISTANCE, kN/m

		P4002	P4003	P4004	Method
Aluminum 2017A sandblasted	at 23°C	4 CF	5,5 CF	4 CF	ISO 4578
	after wet cataplasme 7 days at 70°C/100% RH	3,5 CF	4 CF	3,5 CF	
	after 21 cycles D3*	4 CF	4,5 CF	4 CF	

CF: Cohesive Failure AF: Adhesive Failure SCF: Special Cohesive Failure SF: Substrate Failure

DF: Delamination Failure = délamination du substrat

\*Cycle D3: exposition cycle in the heat, in the cold and in the humidity according to ISO 9142 standard

## EQUIPMENT

ADEKIT P4302 can be applied with a notched spatula or a glue roller, quantity varies from 250 to 500 g/m<sup>2</sup> depending on the application and the substrate.

Please consult our technical department for applications needing a machine.

## SURFACE 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.

## HANDLING PRECAUTIONS

It is recommended to use the product at a temperature between +15°C and +25°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 P4302 POLYOL and P4002, P4003 et P4004 ISOCYANATES is 12 months stored in its original unopened packaging at a temperature between +15°C and +25°C.

## PACKAGING

P4302 POLYOL	P4002 ISOCYANATE	P4003 ISOCYANATE	P4004 ISOCYANATE
5 Kg 25 Kg 312,5 Kg	22 Kg 250 Kg	22 Kg 225 Kg	1,1 Kg 5 Kg 250 Kg

## 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.