

# Aircraft Interior | Material Selection Guide

Product		DELO-DUOPOX 2C epoxy adhesives				
		AB8390	AB8162			
Applications	Possible applications	Casting	Inserts & hinges	Bonded pins	✓	✓
			Load-bearing	T-joint	Mortise & tenon	✓
		Linear joints		Ditch & pot	Multiple slot	✓
				Single slot		✓
	Decorative (non-load-bearing)	Cut & fold		✓		
		Decorative elements		✓	✓	
General	Color		colorfast white	beige yellowish		
	Mixing ratio (A:B)		according to volume/according to weight		1:1/1.20:1	2:1/2.12:1
	Filler		inorganic		inorganic	inorganic
	Viscosity	high	✓			
		medium				
low			✓			
Curing mechanism						
Properties	Flow behavior		pasty but good handling during dispensing, thixotropic property	excellent flow behavior and low sagging effect due to thixotropy		
	Media resistance		resistance to Skydrol reference fluid (Tri-n-butyl-phosphate) after 500 h storage at +70 °C based on initial value of tensile shear strength Al/Al sand-blasted, DIN EN 1465		92	98
Curing	Processing time <sup>1)</sup> [min]		at room temperature (approx. +23 °C), 100 g preparation		fast (≤ 20 min)	10
					medium (> 20 min to ≤ 60 min)	60
					long (> 60 min)	
	Curing time [h]		at room temperature (approx. +23 °C), DIN EN 1465/DELO Standard 4		until initial strength, tensile shear strength 1 – 2 MPa	5
					until functional strength, tensile shear strength > 10 MPa	12
Mechanical properties	Tensile shear strength [MPa]		AI/Al sand-blasted, DIN EN 1465		curing 7d at room temperature (approx. +23 °C), measured at room temperature	24
					curing 2 h at +60 °C, measured at room temperature (approx. +23 °C)	25
					curing 7d at room temperature (approx. +23 °C), measured at +85 °C	5
						6
Floating roller peel resistance [N/mm]		AI/Al sand-blasted according to DIN EN 2243-2			4	3.5
Tensile strength [MPa]		DIN EN ISO 527			36	36
Elongation at tear [%]		DIN EN ISO 527			4	2
Young's modulus [MPa]		DIN EN ISO 527			2,300	3,200
Glass transition temperature T <sub>g</sub> [°C]		DMTA, 2nd heating run			+92	+117
Availability	Storage life at room temperature (max. +25 °C)		(vol./comp. = 200 ml: 12 months)		9 months	9 months
	Color modification		none, only available in colorfast white			also available in gray
	Typical packages: double chamber cartridge, hobbock		200 ml, 20 l		200 ml, 20 l	200 ml, 20 l
Conformity	Flammability tests: Flammability 12 s, Optical Smoke Density, Flame Smoke Toxicity <sup>3)</sup>				✓	✓
	AIMS (Airbus Industries Material Specification)				-	-
	Compliant with RoHS directive 2015/863/EU				✓	✓
	Antimony and bromine containing compounds not intentionally added				✓	✓

<sup>1)</sup> DELO standard 52 (acc. to DIN EN 10364:2007/method 6)  
<sup>2)</sup> < 5 % elongation at tear after thermal aging  
<sup>3)</sup> meets the requirements of the FST test according to a) CS/FAR Part 25 §25.853(a)(1)(ii) Amdt. 15/Amdt. 25-116 & ABD0031 (Resistance of Material to Flame, 12 s Vertical Bunsen Burner Test)  
b) CS/FAR Part 25 §25.853(d) Amdt. 15/Amdt. 25-116 & ABD0031 (Specific Optical Density of Smoke)  
c) ABD0031 (Toxic Components on Combustion Products)  
<sup>4)</sup> in addition to <sup>3)</sup>: CS/FAR Part 25 §25.853(a)(1)(i) Amdt. 18/Amdt. 25-116 & ABD0031 (Resistance of Material to Flame, 60 s Vertical Bunsen Burner Test)

DELO-DUOPOX 2C epoxy adhesives			DELO-PUR 2C polyurethane adhesives	
AB8660	VE 23511	VE 24041 (future serial number: AB8486)	AD948	AD996
✓	✓	✓	✓	
✓	✓	✓	✓	✓
		✓		✓
		✓		✓
✓	✓	✓	✓	✓
gray/opaque	beige/opaque	whitish	beige	beige
2:1/1.81:1	1:1/1.05:1	1:1/1:1	1:1/1:1	1:1/1:1
inorganic	inorganic	inorganic	minerals	minerals
✓	✓			✓
		✓	✓	
curing at room temperature (approx. +23 °C), possible acceleration by heat (e.g. +60 °C)				
good flowability during dispensing and non-sagging effect due to high thixotropy	pasty and easy handling	good flowability during dispensing and non-sagging effect due to high thixotropy	good flow behavior and low sagging effect, easy handling	pasty and easy handling
n. d.	92	94	81	70
20	< 8		15	9
		120		
4.5	0.4	6.5	2.5	1.5
7.5	2	12	6	4
25	20	24	21	23
25 (at +65 °C)	not determined	24	16	19
7	3.5 (at +80 °C)	4	6 (at +80 °C)	6 (at +80 °C)
2.5 (at 7d rt) 4.2 (at 2 h +65 °C)	not determined	3.5	5	4.8
34	12	34	23	20
4.5	20 <sup>2)</sup>	4	17	20
3,000	350	1,900	1,000	880
+106	+43	+86	+54	+68
3 months	3 months	9 months	9 months (vol./comp. < 1 l) 6 months (vol./comp. ≥ 1 l)	12 months (vol./comp. < 1 l) 10 months (vol./comp. ≥ 1 l)
none	could be possible	also available in gray	could be possible	also available as black product variant (DELO-PUR AD997)
200 ml, 20 l	200 ml, 20 l	200 ml, 20 l	200 ml, 20 l	620 ml, 20 l
-	✓ <sup>4)</sup>	✓	tested and qualified within specific compound within release process for AIMS 10-04-001	
-	-	-	AIMS 10-04-001	AIMS 10-04-001
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓

AB = Aviation Bonding AD = Adhesive

# CONTACT

**DELO** Industrial Adhesives  
Headquarters

► **Germany** · Windach / Munich

- **China** · Shanghai
- **Japan** · Yokohama
- **Malaysia** · Kuala Lumpur
- **Singapore**
- **South Korea** · Seoul
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www.DELO-adhesives.com

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MATERIAL  
SELECTION GUIDE

**Aircraft Interior**