

PB1000

Modified Benzoxazine Resin

Next Generation Prepreg for Aircraft Interiors

- **Fibre reinforced thermosetting preimpregnated material for aircraft interior parts**
- **No free phenol and formaldehyde, fulfils AP2091**
- **Non-volatile curing, 140°C / 45min, 160°C / 15min**
- **Outstanding surface quality**
- **Excellent FST and Heat Release behaviour, fulfils ABD0031**
- **Improved mechanical properties**
- **Long shelf and shop life**

Introduction

Gurit is proud to present its next generation of aircraft interior prepregs based on PB1000. PB1000 is a modified benzoxazine resin that is without free formaldehyde and phenol and satisfies the most recent environmental standards like AIRBUS AP2091. It features a non-volatile, rapid cure, generating a perfect void and porous free surface, through which time and cost consuming rework, is eliminated.

Gurit's novel PB1000 fully complies with demanding international JAR/FAR fire protection regulations regarding flammability, smoke, toxicity (FST) and heat release. Due to its excellent mechanical performance, PB1000 is perfectly suited to fulfil present and forthcoming stress criteria for interior design.

Meeting increasing demands on cost efficiency in aircraft interior manufacturing, PB1000 is also designed for commonly used fast hot-in / hot-out curing processes. This unique material performance combined with a competitive cost price level makes PB1000 an advantageous choice for aircraft interior applications and is clearly capable to replace phenolic systems.



Comparison of typical mechanical values (US7781 fabric / 40% resin)			PB1000	Aerospace Phenolic	
		Standard	Values		Unit
Flexural Strength (warp)	RT	ISO 178	700	470	MPa
	80°C		550	320	
Flexural Modulus (warp)	RT	ISO 178	25	19	GPa
	80°C		22	16	
Interlaminar Shear Strength	RT	AITM 1.0019	35	20	MPa
	80°C		28	16	
Climbing Drum Peel Strength	RT	EN 2243-3	110	90	N/75 mm
Flammability Smoke Density Heat Release	60s - -	AITM 2.0002A AITM 2.0007A AITM 2.0006	6 / 0 / 0 19 50 / 25	6 / 0 / 0 5 30 / 25	cm / s / s D _m HRR / HR

Notice

This data has been obtained from representative sample specimens. Because the properties depend strongly on the fabrication and testing conditions, Gurit cannot guarantee that the data listed above will be achieved with other processes and equipment.

Gurit (Zullwil) AG

Fabrikweg 54
CH-4234 Zullwil
Switzerland

T +41 (0) 61 795 06 01

F +41 (0) 61 795 06 04

Gurit (Kassel) GmbH

Otto-Hahn-Str. 5
D-34123 Kassel
Germany

T +49 (0) 561 99 85 63 0

F +49 (0) 561 99 85 63 22

E info@gurit.com

W www.gurit.com