#### Europe | Middle East | India | Africa Airex AG 5643 Sins, Switzerland T +41 41 789 66 00 | F +41 41 789 66 60 corematerials@3AComposites.com

### North America | South America Baltek Inc.

High Point, NC 27261, USA T +1 336 398 1900 | F +1 336 398 1901 corematerials.americas@3AComposites.com

Asia | Australia | New Zealand 3A Composites (China) Ltd. 201201 Shanghai, China T +86 21 585 86 006 | F +86 21 338 27 298 corematerials.asia@3AComposites.com











www.3ACcorematerials.com

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# CORE MATERIALS

## **PRODUCT LIST Structural core materials**

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								CHARACTERISTICS	APPLICATIONS	PROCE	SSING					
		Marine	Wind energy	Rail	Road	Aerospace	Industrial	All of our products are lightweight and offer fatigue resistance, low water absorption, sound and thermal insulation and positive flotation. Specific superior features are listed below:		Contact moulding (hand/spray)	Vacuum infusion	Adhesive bonding	Pre-preg	Resin injection (RTM, VARTM)	(SMC, GMT)	Thermoforming
AIREX <sup>®</sup> R82 High performance structural foam (60 – 110 kg/m <sup>3</sup> ) (3.7 – 6.9 lb/ft <sup>3</sup> )				••		•••		<ul> <li>fulfills the most stringent fire requirements</li> <li>very low moisture absorption</li> <li>excellent dielectric properties (radar transparent)</li> <li>extremely wide operating temperature range</li> <li>remains ductile at cryogenic temperatures</li> </ul>	Sandwich structures subjected to extreme environments (hot or cold), exposed to fire loads in service or that require very high process temperatures or low dielectric pro- perties (radar transparent)	~	(√)	~	~	(√)		~
AIREX° T10 Industrialised structural foam core (60 – 110 kg/m³) (3.7 – 6.9 lb/ft³)					•••		•••	<ul> <li>exceptional strength and stiffness</li> <li>outstanding homogeneity of density and cell structure</li> <li>compatible with all resins and processing methods</li> <li>high chemical and thermal resistance</li> <li>recycled and recyclable</li> <li>excellent total cost proposition</li> </ul>	Sandwich structures subjected to static or dynamic loads which also require high service or processing temperatures	√	~	~	~	~	~	~
AIREX° T90 Fire resistant structural foam (60 – 210 kg/m <sup>3</sup> ) (3.8 – 13.1 lb/ft <sup>3</sup> )		•		•••	••	•	••	<ul> <li>fulfills high FST (flame, smoke, toxicity) requirements</li> <li>compatible with all resins and processing methods</li> <li>thermally stable with no outgassing</li> <li>very high chemical resistance</li> <li>recyclable</li> </ul>	Sandwich structures subjected to static or dynamic loads, high service or processing temperatures or exposed to fire loads	~	1	1	~	(√)	~	~
AIREX <sup>®</sup> T92 Easy processing structural foam (60 – 320 kg/m <sup>3</sup> ) (3.8 – 20.0 lb/ft <sup>3</sup> )		••	•••				••	<ul> <li>outstanding fatigue properties</li> <li>compatible with all resins and processing methods</li> <li>thermally stable with no outgassing</li> <li>very high chemical resistance</li> <li>recycled and recyclable</li> <li>best-in-class resin uptake; especially with SealX option</li> </ul>	Sandwich structures subjected to static or dynamic loads which also require high service or processing temperatures	✓	1	1	~	(√)	~	~
AIREX° C70           Universal structural foam           (40 - 250 kg/m³)         (2.5 - 15.6 lb/ft³)		•••	•••				••	<ul> <li>very high strength and stiffness to weight ratio</li> <li>good impact strength</li> <li>good chemical resistance</li> <li>low resin absorption</li> </ul>	Sandwich structures subjected to static or dynamic loads with a premium on weight reduction	<ul> <li>✓</li> </ul>	1	1	(√)	~		~
AIREX° C71 Elevated temp. structural foam (60 – 80 kg/m³) (3.7 – 5 lb/ft³)		••	•••			••	•	<ul> <li>very high strength and stiffness to weight ratio</li> <li>high temperature resistance</li> <li>good impact strength</li> <li>low flammability</li> <li>low resin absorption</li> </ul>	Sandwich structures subjected to static or dynamic loads also exposed to elevated temperatures during manufac-turing or in service	<b>v</b>	1	1	~	~		~
AIREX® PXc/PXw Fiber-reinforced structural foam (245 – 420 kg/m <sup>3</sup> ) (15 – 26 lb/ft <sup>3</sup> )		••••					••	<ul> <li>very high compression and shear properties (PXc)</li> <li>good flexural (bending) strength and stiffness (PXw)</li> <li>high temperature resistance</li> <li>very high chemical resistance</li> <li>high fastener pull-out strength</li> </ul>	PXc for sandwich structures subjected to high static loads including point loads from hardware attachment. PXw ideally suited as a stand-alone panel replacing wood or plywood	✓	1	1	(√)	~	(√)	~
BALTEK <sup>®</sup> SB Select grade structural balsa (94 – 247 kg/m <sup>3</sup> ) (5.9 – 15.4 lb/ft <sup>3</sup> )			•••	••••	•••	•		<ul> <li>outstanding strength and stiffness to weight ratio</li> <li>fulfills most FST (flame, smoke, toxicity) requirements</li> <li>extremely wide operating temperature range</li> <li>excellent fatigue behavior</li> <li>ecological product</li> </ul>	Sandwich structures subjected to high static or dynamic loads, exposed to fire loads in service or that require high ope- rating or process temperatures	✓	~	~	~	~	~	
BALTEK® SBCCertified select grade structural balsa(96 - 153 kg/m³)(6 - 9.5 lb/ft³)	ESC Version For critica The met of version	••••	•••	••••	•••	•	••	<ul> <li>plantation-grown, FSC<sup>*</sup>-certified and fully traceable</li> <li>outstanding strength and stiffness to weight ratio</li> <li>fulfills most FST (flame, smoke, toxicity) requirements</li> <li>extremely wide operating temperature range</li> <li>excellent fatigue behavior</li> </ul>	Sandwich structures subjected to high static or dynamic loads, exposed to fire loads in service or that require high ope- rating or process temperatures	✓	~	~	~	~	~	
BALTEK <sup>®</sup> VBC Tailored structural core material (180 – 240 kg/m <sup>3</sup> ) (11.2 – 15 lb/ft <sup>3</sup> )		••	••••			•	•••	<ul> <li>tailored structural core material</li> <li>homogenous density distribution</li> <li>high damage tolerance</li> <li>excellent fatigue behavior</li> <li>extremely wide operating temperature range</li> <li>easy processing to minimal thickness</li> <li>FSC* 100% certified</li> </ul>	Sandwich structures with tailored, oriented properties that are subjected to high static or dynamic loads, ex-posed to fire or applications with high operating or processing temperatures.	✓	~	~	✓	~	~	
		••• =	best choice	•• =	most suitab	ole •	= suitable									

PROCESSING
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