



DATA SHEET

Issue 08/10 / Replaces Issue 06/08

BALTEK® SB

Structural End-Grain Balsa

Characteristics

- Extremely high strength and stiffness to weight ratios
- Excellent fire performance
- Ecological product
- Wide operating temperature range -212 °C to +163 °C (-414 °F to +325 °F)
- Excellent fatigue resistance
- Good sound and thermal insulation
- High impact strength
- Good moisture resistance

Applications

- **Marine:**
Hulls, decks, bulkheads, superstructures, interiors, tooling + molds
- **Road and Rail:**
Floors, walls, roof panels, body panels, interiors, front-ends, side skirts
- **Wind Energy:**
Rotor blades, spinners, nacelle covers, generator housings
- **Aircraft:**
Floor panels, galley carts, interior partitions, cargo pallets, containers, general aviation (sport aircraft) parts
- **Defense:**
Naval vessels, containers, cargo pallets, shelters
- **Industrial:**
Tooling, tanks, ductwork, impact limiter, concrete forms, fascia panels, skis, snowboards, wakeboards

Processing

- Contact molding (hand/spray)
- Resin injection (RTM)
- Adhesive bonding
- Compression molding
- Prepreg processing (up to 180 °C, 355 °F)
- Vacuum infusion

Description:

BALTEK® SB is a core material produced from certified kiln-dried balsa wood in the 'end-grain' configuration. It has extremely high strength and stiffness to weight ratios, and achieves an excellent bond with all types of resins and adhesives.

It is compatible with a variety of manufacturing processes and is resistant to temperature changes, or exposure to fire, or chemicals such as styrene.

BALTEK® SB is an ideal core material for an extensive range of applications. All while being a renewable resource.



Typical properties BALTEK® SB		Unit (metrical)	SB.50	SB.100	SB.150
Apparent nominal density	ASTM C-271	kg/m ³	94	153	247
Compressive strength perpendicular to the plane	ASTM C-365	N/mm ²	6.3	12.9	26.3
Compressive modulus perpendicular to the plane	ASTM C-365	N/mm ²	1'993	4'005	7'982
Tensile strength perpendicular to the plane	ASTM C-297	N/mm ²	7.4	13.2	23.5
Tensile modulus perpendicular to the plane	ASTM C-297	N/mm ²	2'200	3'570	5'759
Shear strength	ASTM C-273	N/mm ²	1.8	3.0	4.9
Shear modulus	ASTM C-273	N/mm ²	106	160	309
Thermal conductivity at room temperature	ASTM C-177	W/m.K	0.048	0.066	0.084
Standard sheet	Width	mm	609.6	609.6	609.6
	Length	mm	1219.2	1219.2	1219.2
	Thickness	mm	4.7 to 76	4.7 to 76	6 to 76
ContourKore (CK)	Width	mm	609.6	609.6	609.6
	Length	mm	1219.2	1'219.2	1219.2 ¹⁾
	Thickness	mm	4.7 to 50	4.7 to 50	6 to 50

Finishing Options, other dimensions and tolerances upon request

¹⁾ above 38 mm sheets are 609.6 x 609.6 mm

Please specify LamPrep (micro-sanded) surface treatment or AL600/10 coating (decreases porosity and increases bond strength) when ordering

The data provided gives approximate values for the nominal density. Due to density variations these values can be lower than indicated above. Minimum values to calculate sandwich constructions can be provided upon request. The information contained herein is believed to be correct and to correspond to the latest state of scientific and technical knowledge. However, no warranty is made, either expressed or implied, regarding its accuracy or the results to be obtained from the use of such information. No statement is intended or should be construed as a recommendation to infringe any existing patent.

3A COMPOSITES CORE MATERIALS
www.corematerials.3AComposites.com



Europe / Middle East / Africa:
 Airex AG
 Industrie Nord 26
 5643 Sins, Switzerland
 Tel +41 41 789 66 00
 Fax +41 41 789 66 60
corematerials@3AComposites.com

North America / South America:
 Baltek Inc.
 108 Fairway Court
 Northvale, NJ 07647, USA
 Tel +1 201 767 14 00
 Fax +1 201 387 66 31
corematerials.americas@3AComposites.com

Asia / Australia / New Zealand:
 3A Composites (China) Ltd.
 Shangfeng Road 933, Building 6, Pudong
 201201 Shanghai, China
 Tel +86 21 585 86 006
 Fax +86 21 338 272 98
corematerials.asia@3AComposites.com

Typical properties BALTEK® SB		Unit (imperial)	SB.50	SB.100	SB.150
Apparent nominal density	ASTM C-271	lb/ft³	5.9	9.5	15.4
Compressive strength perpendicular to the plane	ASTM C-365	psi	917	1878	3813
Compressive modulus perpendicular to the plane	ASTM C-365	psi	289'098	580'914	1'157'714
Tensile strength perpendicular to the plane	ASTM C-297	psi	1073	1920	3413
Tensile modulus perpendicular to the plane	ASTM C-297	psi	319'131	517'774	835'277
Shear strength	ASTM C-273	psi	262	433	712
Shear modulus	ASTM C-273	psi	15'364	23'191	44'786
Thermal conductivity at room temperature	ASTM C-177	BTU.in/ft².hr.°F	0.331	0.456	0.581
Standard sheet	Width	in	24	24	24
	Length	in	48	48	48
	Thickness	in	0.1875 to 3	0.1875 to 3	0.25 to 3
ContourKore (CK)	Width	in	24	24	24
	Length	in	48	48	48 ¹⁾
	Thickness	in	3/16 bis 2	3/16 bis 2	1/4 bis 2

Finishing Options, other dimensions and tolerances upon request

¹⁾ above 38 mm (1½ ") sheets are 24" by 24"

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Europe / Middle East / Africa:
 Airex AG
 Industrie Nord 26
 5643 Sins, Switzerland
 Tel +41 41 789 66 00
 Fax +41 41 789 66 60
corematerials@3AComposites.com

North America / South America:
 Baltek Inc.
 108 Fairway Court
 Northvale, NJ 07647, USA
 Tel +1 201 767 14 00
 Fax +1 201 387 66 31
corematerials.americas@3AComposites.com

Asia / Australia / New Zealand:
 3A Composites (China) Ltd.
 Shangfeng Road 933, Building 6, Pudong
 201201 Shanghai, China
 Tel +86 21 585 86 006
 Fax +86 21 338 272 98
corematerials.asia@3AComposites.com