

DATA SHEET

08.2011 (replaces 03.2011)

AIREX®
BALTEK®



BALTEK® SBC

Certified Select Grade Structural Balsa

CHARACTERISTICS

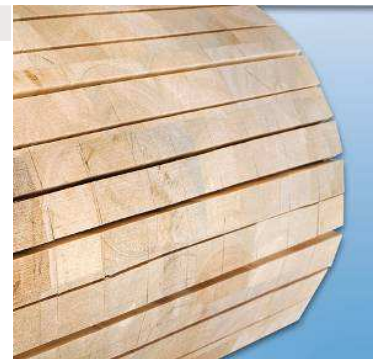
- Outstanding strength and stiffness to weight ratios
- Excellent fatigue and impact resistance
- Select, first-class and FSC certified lumber quality
- Ecological product, 100% plantation grown lumber
- Full traceability and highest lumber quality due to strict process control from seedling to final product
- Extremely wide operating temperature range -212 °C to +163 °C (-414 °F to +325 °F)
- Fulfills most FST (flame, smoke, toxicity) requirements
- Good sound and thermal insulation
- Good moisture resistance

APPLICATIONS

- **Marine**
Hulls, decks, bulkheads, superstructures
- **Road and Rail**
Floors, walls, roof panels, interiors, doors, front-ends, side skirts
- **Windkraftanlagen**
Rotor blades (shear webs & shells)
- **Aircraft**
Floors, bulkheads, general aviation (fuselage & wing)
- **Defense**
Naval vessels, containers, cargo pallets, shelters, armor panels
- **Industrial**
Architectural panels, sporting goods, tanks, forms and molds

PROCESSING

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



BALTEK® SBC is a core material produced from certified kiln-dried balsa wood in the 'end-grain' configuration.

Forest Stewardship Council (FSC) Certification ensures that the balsa lumber is sourced from 100% plantation grown trees and that all production steps are tightly monitored. This ensures that highest quality of balsa is provided and full traceability from seedling to the delivered product is guaranteed. BALTEK® SBC is the only FSC-certified structural balsa core material.

SBC 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 and chemicals.

BALTEK® SBC is an ideal core material for an extensive range of applications. All while FSC-certified as a renewable resource.

www.corematerials.3AComposites.com – excellence in core solutions



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.
P.O. Box 16148, High Point, NC 27261
Office/Plant: 5240 National Center Drive
Colfax, North Carolina 27235, USA
Tel +1 336 398 1900 / Fax +1 336 398 1901
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 27 298
corematerials.asia@3AComposites.com

Typical properties for BALTEK® SBC		Unit (metrical)	SB.50	SB.100
Apparent nominal density	ASTM C-271	kg/m ³	96	153
Compressive strength perpendicular to the plane	ASTM C-365	N/mm ²	6.3	12.9
Compressive modulus perpendicular to the plane	ASTM C-365	N/mm ²	1993	4005
Tensile strength perpendicular to the plane	ASTM C-297	N/mm ²	7.4	13.2
Tensile modulus perpendicular to the plane	ASTM C-297	N/mm ²	2200	3570
Shear strength	ASTM C-273	N/mm ²	1.8	3.0
Shear modulus	ASTM C-273	N/mm ²	106	160
Thermal conductivity (at room temperature)	ASTM C-177	W/m.K	0.048	0.066
Standard sheet (rigid)	Width	mm ± 5	609.6	609.6
	Length	mm ± 10	1219.2	1219.2
	Thickness	mm +0.25 -0.75	5 to 76	5 to 76
ContourKore (CK)	Width	mm ± 5	609.6	609.6
	Length	mm ± 10	1219.2	1219.2
	Thickness	mm +0.25 -0.75	5 to 50	5 to 50

Finishing Options, other dimensions and tolerances upon request

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.