

General Product Description

PRODUCT DATA SHEET

Balsa Core Block and Panel

The Sinopro-Group Industries Balsa Core Block (BCB) and (BCP) are kiln-dried process balsa wood products. Material cut 'end grain' from this product is ideal for use in composite and sandwich construction and is suitable for a wide range of uses where a strong, lightweight material is required. Briefly, the production process comprises dried, dressed boards being glued and pressed into blocks. Panels are then cut, repaired and dressed before being packed in humidity controlled boxes. Defective boards, panels and blocks may be rejected by the Sinopro-Group Industries Quality Management System.

Properties & Characteristics

Sinopro-Group Industries BCBs and BCPs are produced from Balsa (Bombacaceae sp. Ochroma pyramidale, O. lagopus, O.similis) that is grown on plantations in Ecuador ONLY.

BCBs and BCPs come in a range of standard densities, and to standard or customer-specific density and dimensions; however, the process and timber quality is the same for each type of core block or panel.

Specifications and properties shown in following table are the average for any completed block in our range. The data input has been verified by independent testing, and are considered to be typical properties.

Density and Humidity are the primary variable across the Sinopro-Group Industries BCB and BCP range, and different density BCBs and BCPs will result in different characteristic values.

These are the key to ensuring our balsa is used correctly and effectively in various industrial applications.

Characteristic	Test Standard	Values	Unit of Measure
Moisture Content	ISO 3130:1975	12	%; $\pm 4\%$
Apparent Density	ASTM C 271	155	kg/m ³
Compressive Strength II	ASTM C 365	10.5	MPa
Compressive Strength \perp	ASTM C 365	1.5	MPa
Modulus of Elasticity (Compression) II	ASTM C 365	3,520	MPa
Modulus of Elasticity (Compression) \perp	ASTM C 365	81.6	MPa
Shear Strength	ASTM C 273	4.0	MPa
Shear Modulus	ASTM C 273	227	MPa
Tensile Strength	ASTM C 297	13.8	MPa

Where: II is parallel to the grain, and \perp is perpendicular to the grain.

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Sinopro-Group BCP is the classic balsa wood core material.

High quality composite core material made from end-grain Balsa

When an application requires high strength, stiffness and cost effectiveness, Sinopro-Group is a suitable solution due to a good balance between cost, properties and weight.

Sinopro-Group BCP is available in all infusion formats including:

- ❑ Uncoated or coated for resin uptake control
- ❑ Perforations and grooves to aid infusion
- ❑ Rigid or flexible to conform to complex tool geometry
- ❑ Exceptional shear and compressive strength
- ❑ Made from ecological and renewable resources
- ❑ Suitable for wind energy, marine, transportation, industrial, and any other
- ❑ application designed with the properties of Balsa
- ❑ Suitable for hand lay-up, vacuum bag and infusion processes

Storage:

BCBs and BCPs should be stored and handled in such a way as to keep them dry and structurally sound. This could include:

- ❑ Maintaining dry, clean air flow within the storage facility;
- ❑ Storing away from direct sunlight and any strong heat source;
- ❑ Maintaining air space between pallets and between individual BCB;
- ❑ Continue to store BCPs in original kit packages
- ❑ Loose covering with plastic to prevent any fluid contamination;
- ❑ If ambient humidity is high, applying desiccant products to absorb excess moisture;
- ❑ Regular inspection for animal and/or insect infestation; and,
- ❑ Random sample testing for moisture content.

Wood is a natural product that responds to temperature and humidity variations by expanding and contracting. Sometimes these changes may be noticeable in the physical appearance of the product. Although every care is taken to ensure our products are able to handle temperature and humidity changes, the conditions of your home can affect the wooden products you buy from us.

The characteristics of the wood used to build a particular product may vary slightly from the wood used in any samples or product photography due to the inherent characteristics of the material.

We advise you to keep the product in consistent, stable conditions to minimize the effects of temperature and moisture change in the atmosphere. For example, avoiding placing the product close to a strong heat source or in uncontrolled humidity environments will go a long way to ensuring the longevity of the product.

Sinopro-Group Industries Ltd recommends processing its BCB product within 12 months and using BCPs within 3 months, although structural integrity of BCBs have been maintained after ten years in ideal storage situations.

Health & Safety:

In its finished and complete state, a BCB or BCP does not contain any known hazardous substances and no special handling requirements are considered necessary.

When a BCB is cut or otherwise processed, exposure to dust may result. Dust inhalation, or collection of dust on floors may cause a hazardous condition to exist.

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Wood dust has been classified as a Group 1 human carcinogen by the International Agency for Research on Cancer, such classification being based primarily on evaluation of nasal cavities and paranasal sinuses. Preventive and/or protective measures should therefore be implemented as considered appropriate by the end user.

This product is made from combustible wood, and should be stored away from open flame, heat sources or other means of ignition.

Disclaimer:

While every effort is made to ensure the accuracy of information given herein, Sinopro-Group Industries Ltd provides the information in good faith, and cannot accept liability for loss or damage arising from the use of the information supplied. No warranty can be given due to the nature and properties of balsa wood. Product properties shown herein are those of samples tested by an accredited, independent testing facility; other tests and procedures may produce different results.

NOTICE:

All advice, instruction or recommendation is given in good faith but the selling Sinopro-Group entity (the Company) only warrants that advice in writing is given with reasonable skill and care. No further duty or responsibility is accepted by the Company. All advice is given subject to the terms and conditions of sale (the Conditions) which are available on request from the Company or may be viewed at Sinopro-Group's Website: www.Sinopro-Group.com/companydocs.html

The Company strongly recommends that Customers make test panels in the final process conditions and conduct appropriate testing of any goods or materials supplied by the Company prior to final use to ensure that they are suitable for the Customer's planned application. Such testing should include testing under conditions as close as possible to those to which the final component may be subjected. The Company specifically excludes any warranty of fitness for purpose of the goods other than as set out in writing by the Company. Due to the varied nature of end-use applications, the Company does, in particular, not warrant that the test panels in the final process conditions and/or the final component pass any fire and safety standards. The Company reserves the right to change specifications and prices without notice and Customers should satisfy themselves that information relied on by the Customer is that which is currently published by the Company on its website. Any queries may be addressed to the Technical Department. Sinopro-Group is continuously reviewing and updating literature.

Please ensure that you have the current version by contacting your sales contact and quoting the revision number in the bottom left-hand corner of this page.

This is an uncontrolled document and will not be maintained by the Sinopro-Group Industries Quality Management System.

