



# Gurit® Balsaflex™

## BALSA WOOD CORE MATERIAL

- ↪ High quality composite core material made from end-grain Balsa
- ↪ 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
- ↪ Gurit® Balsaflex™ is approved by DNV GL
- ↪ Gurit® Balsaflex™ Lite is new format also available

### INTRODUCTION

**Gurit® Balsaflex™ is the classic balsa wood core material.**

When an application requires high strength, stiffness and cost effectiveness, Gurit® Balsaflex™ is a suitable solution due to a good balance between cost, properties and weight.

Gurit® Balsaflex™ 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

Please refer to the Gurit® Balsaflex™ product brochure for full details.

## PRODUCT INFORMATION

Gurit® Balsaflex™ density or format availability is summarised in the table below. The product formats listed to the right also benefit from 3<sup>rd</sup> Party Certification.

PRODUCT DESCRIPTION	CERTIFICATION
Gurit® Balsaflex™ 150	DNV GL

DIMENSIONS <sup>1</sup>	UNIT	BALSAFLEX™ 110 & 150
Length	mm	1220
	in	48
Width	mm	610
	in	24
Thickness <sup>2</sup>	mm	6.35 to 50.8
	in	¼ to 2

<sup>1</sup>Tolerances on demand

<sup>2</sup>Thickness values provided are for flexible (contour scrim) format. Higher thicknesses are available for rigid (plain sheet) panels  
Data is also available for Gurit® Balsaflex™ 220 upon request to Gurit Technical Support.

## MECHANICAL PERFORMANCE

PROPERTY (AVERAGE) <sup>3</sup>	UNIT	Gurit® Balsaflex™ 110	Gurit® Balsaflex™ 150	TEST STANDARD
Nominal Density	kg/m <sup>3</sup>	110	155	-
	lb/ft <sup>3</sup>	6.9	9.7	
Typical Density range	kg/m <sup>3</sup>	100 – 125	135 – 176	-
	lb/ft <sup>3</sup>	6.2 – 7.8	8.4 – 11.0	
Compression Strength	MPa	8.3	13.0	ASTM C-365
	Psi	1204	1885	
Compression Modulus	MPa	2130	3518	ASTM C-365
	Psi	308930	510243	
Shear Strength	MPa	2.0	2.8	ASTM C-273
	Psi	290	406	
Shear Modulus	MPa	103	163	ASTM C-273
	Psi	14939	23641	
Compression Strength (transverse to fibre)	MPa	0.56	0.75	ASTM C-365
	Psi	81	108	
Compression Modulus (transverse to fibre)	MPa	35	57	ASTM C-365
	Psi	5076	8267	

<sup>3</sup>Thickness values provided are for flexible (contour scrim) format. Higher thicknesses are available for rigid (plain sheet) panels.

Tensile properties and minimums are available upon request to Gurit Technical Support.

Above properties are also applicable to Balsaflex™ Lite product format.

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## INSTRUCTIONS FOR USE

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### PACKAGING AND HANDLING RECOMMENDATIONS

Gurit® Balsaflex™ can be packaged in three types of packaging.

1. Boxes with sealed plastic bags inside allowing easy access to the panels while keeping the remainder protected
2. Boxes with plastic film inside allowing for faster access to panels
3. Shrink-wrapped plastic pallets which allow the fastest access to the panels with a reduction in packaging waste

### ONCE THE PACKAGE IS OPEN

As Gurit® Balsaflex™ only absorbs moisture in the direction of its fibres, only the widest surface of the panel needs to be protected.

Boxes:

- ▣ Slit 3 sides of the top bag
- ▣ The top side of the bag can be used to cover the remaining balsa and reduce its exposure to the atmosphere

Shrink wrapped plastic pallets:

- ▣ Cover the panels with plastic once the pallet is opened

Don't leave balsa sheets lying on the floor or cutting table without protection. It is better to keep them inside the original packaging until needed.

Reduce the humidity exposure time to a minimum by ensuring a dry working atmosphere.

Never store balsa directly on a cement floor, always use pallets and protect the surfaces that can absorb moisture.

When using VIP (Vacuum Infusion Process) leave the vacuum on the part for as long as possible before introducing the resin as during this time excess moisture is being removed from both the reinforcements and core.

Panels expand as moisture increases and shrinks as moisture decreases (see below).

Moisture increase



Panels bending in relation  
to the scrim position

Moisture decrease





## NOTICE

All advice, instruction or recommendation is given in good faith but the selling Gurit 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 Gurit's Website: [www.gurit.com/terms-and-conditions.aspx](http://www.gurit.com/terms-and-conditions.aspx)

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 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 Services Department.

Gurit 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.

## TECHNICAL CONTACT INFORMATION

For all other enquiries such as technical queries:

Telephone + 44 1983 828000 (08:30 – 17:00 GMT)  
Email [technical.support@gurit.com](mailto:technical.support@gurit.com)

## 24-HOUR CHEMICAL EMERGENCY NUMBER

For advice on chemical emergencies, spillages, fires or exposures:

Europe +44 1273 289451  
Americas +1 646 844 7309  
APAC +65 3158 1412

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