Gurit CORE

PRODUCT DATASHEET

Gurit

GURIT BALSAFLEX™

BALSA WOOD CORE MATERIAL



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.

- 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
- DNV Certified

DNV

PRODUCT INFORMATION

Gurit Balsaflex format availability is summarized in the table below.

DIMENSIONS[1]	UNIT	BALSAFLEX
Length	mm	1220
	in	48
Width	mm	610
	in	24
Thickness[2]	mm	6.35 to 50.8
	in	¼ to 2

1 Tolerances on demand
2 Thickness values provided are for flexible format (contour scrim). More thickness options are available for rigid panels (plain sheet)

MECHANICAL PERFORMANCE

PROPERTY	UNIT	GURIT BALSAFLEX 110	GURIT BALSAFLEX 150	GURIT BALSAFLEX 250	TEST METHOD
Nominal Density	kg/m^3	110	155	250	-
	lb/ft^3	6.9	9.7	15.6	
Typical Density range	kg/m^3	96 – 130	135 – 176	200 – 300	-
	lb/ft^3	6.0 – 8.1	8.4 – 11.0	12.5 – 18.7	
Compression Strength (parallel to the grain)	MPa	7.4	13.0	21.5	ASTM C-365
	Psi	1073	1,885	3,118	
Compression Modulus (parallel to the grain)	MPa	2,476	3,518	6,014	ASTM C-365
	Psi	359,113	510,243	872,257	
Compression Strength (perpendicular to the grain)	MPa	0.63	0.75	2.2	ASTM C-365
	Psi	91	109	319	
Compression Modulus (perpendicular to the grain)	MPa	43	57	118	ASTM C-365
	Psi	6,237	8,267	17,115	
Shear Strength	MPa	2.1	2.8	4.7	ASTM C-273
	Psi	305	406	682	
Shear Modulus	MPa	120	163	540	ASTM C-273
	Psi	17,405	23,641	78,320	

Above properties are average values.
Tensile properties and minimum values are available upon request to Gurit Technical Support.

INSTRUCTIONS FOR USE

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 fibers, 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).

HEALTH AND SAFETY

The following points must be considered:

1. Skin contact must be avoided by wearing protective gloves. Gurit recommends the use of disposable nitrile gloves for most applications. The use of barrier creams is not recommended, but to preserve skin condition a moisturizing cream should be used after washing.
2. Protective clothing should be worn when mixing, laminating or sanding. Contaminated work clothes should be thoroughly cleaned before re-use.
3. Eye protection should be worn if there is a risk of resin, hardener, solvent or dust entering the eyes. If this occurs flush the eye with water for 15 minutes, holding the eyelid open, and seek medical attention.
4. Ensure adequate ventilation in work areas. Respiratory protection should be worn if there is insufficient ventilation. Solvent vapors should not be inhaled as they can cause dizziness, headaches, loss of consciousness and can have long term health effects.
5. If the skin becomes contaminated, then the area must be immediately cleansed. The use of resin-removing cleansers is recommended. To finish, wash with soap and warm water. The use of solvents on the skin to remove resins etc must be avoided.

   Washing should be part of routine practice:
   - before eating or drinking
   - before smoking & vaping
   - before using the lavatory
   - after finishing work

6. The inhalation of sanding dust should be avoided and if it settles on the skin then it should be washed off. After more extensive sanding operations a shower/bath and hair wash is advised.

Gurit produces a separate full Safety Data Sheet for all hazardous products. Please ensure that you have the correct SDS to hand for the materials you are using before commencing work.

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

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.

CONTACT INFORMATION

Please see local contact information at www.gurit.com

24-HOUR CHEMICAL EMERGENCY NUMBER

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

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