

**SIMONA**

**SIMOWOOD**  
made of Resysta®



**SIMOWOOD**

As versatile as wood, as pliable as plastic

GLOBAL THERMOPLASTIC SOLUTIONS

# SIMOWOOD – Excellent processing capabilities

**SIMOWOOD is the first large-scale sheet made of Resysta®, an innovative hybrid material based on rice husks and a specific thermoplastic. The extruded sheets are processed to look and feel like wood.**



SIMOWOOD is highly resistant to external influences such as sun, rain, snow or salt water, and as an alternative to tropical timber it also contributes to the protection of valuable natural resources.

SIMOWOOD Sheets complement the range of Resysta® Profiles, offering architects, designers, display professionals and other service providers a wealth of new possibilities.

## Fields of application

SIMOWOOD is particularly suited to areas of application that rely on durable, sustainable and weather-proof materials with a wood-like appearance. Potential areas of use:

- Outdoor furniture
- Wall and facade elements
- Interior fittings
- Fences
- Shipbuilding (SIMOWOOD IMO)
- Wellness areas and wet rooms
- Store design
- Exhibition stand design

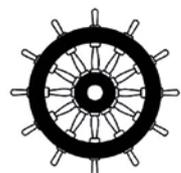
SIMOWOOD can be machined with standard processing equipment, making it as versatile as wood-based products. What is more, like plastic, the sheets are suitable for thermoprocessing, i. e. they combine the benefits of both materials in a single product.

Alongside the standard design, which is sanded on one side, SIMONA also offers a low-flammability product that complies with the regulations of the International Maritime Organisation (IMO). SIMOWOOD IMO thus meets the requirements for use as a material for bulkhead, wall and ceiling linings as well as floor coverings in the area of shipbuilding.

Additionally, SIMONA has successfully undergone quality assurance testing and officially fulfils the quality standards set out in the EU Directive of the European Council (96/98/EC – Module B and D). SIMOWOOD IMO has been certified in accordance with defined requirements; its suitability for marine equipment has been confirmed, as illustrated by the European Union's "steering wheel" mark of conformity granted to this product.

As requested, this certificate of conformity was approved by the US Coast Guard under the terms of the agreement between the European Community and the United States of America.

For further details relating to this product and certification, please refer to the MarED database at [www.mared.org](http://www.mared.org).



**+ Processing capabilities similar to wood and plastic**

SIMOWOOD Sheets can be sawn, milled, drilled, bolted, glued and planed like wood. Using various sanding techniques and varnishes, they can be finished to personal specifications. Additionally, SIMOWOOD is suitable for thermal processing, e.g. welding, thermoforming and deep-drawing.

**+ Innovative and sustainable**

Forests that are destroyed require decades to grow back. The reduction in trees means less rainfall. The tropics are becoming increasingly dry and global temperatures are rising. SIMOWOOD is a genuine alternative to wood and helps to address the environmental issues outlined above.

**+ Durable in indoor and outdoor applications**

In contrast to conventional wood or wood-based products, the material used in SIMOWOOD is resistant to moisture, i.e. there are no signs of swelling. Furthermore, it is weatherproof and offers the benefit of anti-slip properties when wet (supreme slip resistance, Classification Group C as per DIN 51097). This makes SIMOWOOD the perfect choice for both interior and exterior applications.



Picture: Herrenhaus Park- und Terrassenmöbel

**Product range**

		SIMOWOOD	SIMOWOOD IMO
<b>Extruded sheets</b> (sizes/thicknesses in mm)			
	2,000 x 1,000	2, 3, 4, 5, 6, 8	-
	2,500 x 1,250	2, 3, 4, 5, 6, 8	4, 5, 6, 8
	Colours	brown (sanded one side)	brown (sanded one side)

Available on request

Other sizes, thicknesses and unsanded sheets (thickness +0.1 mm) on request.

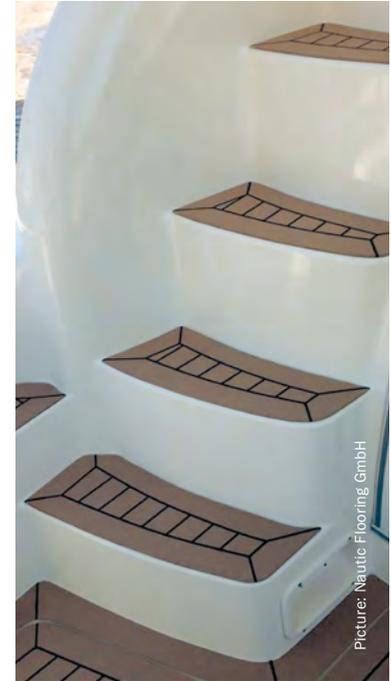
- 1 unsanded
- 2 sanded
- 3 sanded and varnished



# SIMOWOOD – Material specifications

## Material specifications

		SIMOWOOD	SIMOWOOD IMO
Density, g/cm <sup>3</sup> , DIN EN ISO 1183		1.49	1.51
Yield stress, MPa, DIN EN ISO 527		24	25
Elongation at break, %, DIN EN ISO 527		1	1
Tensile modulus of elasticity, MPa, DIN EN ISO 527		3,500	3,800
Flexural modulus of elasticity, MPa, DIN EN ISO 178		3,450	3,800
Flexural strength, MPa, DIN EN ISO 178		41	44
Shore hardness D (15 s), DIN EN ISO 868		75	77
Mean coefficient of linear thermal expansion, K <sup>-1</sup> , ISO 11359-2		4.3 x 10 <sup>-5</sup>	4.3 x 10 <sup>-5</sup>
Resistance to withdrawal of screws (surface), N, DIN EN 320		3 mm: 650, 4 mm: 1,020 5 mm: 1,250, 8 mm: 2,210	3 mm: 650, 4 mm: 1,020 5 mm: 1,250, 8 mm: 2,210
Slip resistance (in wet areas), DIN 51097		Classification Group C	Classification Group C
Fire behaviour	DIN 4102	B2 normal flammability (self-assessment without test certificate); B1 low flammability on request	B1 low flammability (self-assessment without test certificate)
	UL 94	VO (self-assessment without test certificate)	VO (self-assessment without test certificate)
	IMO	-	FTP Code 2010, Annex 1, Part 5



Picture: Nautic Flooring GmbH

The data presented in this section is to be seen as a guide and may vary depending on the processing method and test specimen used. In general, the figures are averages of tests performed on extruded sheets with a thickness of 4 mm. Deviations may be possible if sheets are not available in these specific thicknesses. Please note that this information is not necessarily applicable to products that have undergone downstream processing. The suitability of a material for a specific area of application must be checked by the processor or end user. All technical specifications are provided only as a guide for planning purposes. They do not constitute a guarantee of specific properties or qualities.

## SIMONA worldwide

SIMONA operates production sites in Europe, America and Asia. Maintaining a global network of subsidiaries and distribution partners, we offer fast, flexible and reliable lines of supply.



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