COMPACFOAM

Lightweight structural insulation.

Blocks, sheets, bars, profiles, bespoke shapes and composites in all shapes and sizes.

Lightweight, highly resilient, environmentally durable, recyclable structural thermal insulation.

Simple ordering process and flexible delivery options.

Multitude of uses, construction, window and door supports, facade connections, steel fabrication, boat building, mobile homes and furniture components to name a few.

compacfoam.com

A modern material which is made of pure EPS.

Available in different grades.

The COMPACFOAM grades differ by compressive strength, thermal conductivity and screw retention. Please use the table below for reference. We are happy to advise you on individual needs if you contact our technical team.

Sintered highly compressed EPS		CF 100	CF 125	CF 150	CF 200	CF 300	CF 400	CF eco 200	Norm
$f_{c,m,10\%}$	Compressive strength 10% (N/mm²)	1,13	1,64	1,95	3,53	5,85	11,03	2,62	EN 826
$f_{c,m,2\%}$	Compressive strength 2% (N/mm²)	0,73	0,81	0,98	1,93	3,01	4,31	1,54	EN 826
$f_{c,rk}$	Characteristic strength (N/mm²)	1,02	1,48	1,55	3,19	5,19	9,97	2,37	EN 14358
$f_{c,rd}$	Design value of compressive strength (N/mm²)	0,71	1,02	1,07	2,21	3,59	6,90	1,42	
	Safety factors	y_m =1,3 / k_{mod}=0,9						y_m =1,5 / k_{mod}=0,9	
$f_{c,D}$	Calculation value for serviceability limit state (N/mm²)	0,62	0,69	0,83	1,64	2,56	3,66	1,23	
E_{mean}	E-Module (N/mm²)	28,7	38,4	45,5	99,4	168,7	269,8	73	EN 826
$F_{t,rk,7.5}$	Characteristic pull out strength ø 7,5 mm (N) *	837	919	1.179	1.875	2.677	4.047	1.380	i.a. EN 14358
$F_{90,rk,7.5,15mm}$	Characteristic shear strength ø 7,5 mm (N) *	296	394	493	542	1.012	1.333	954	i.a. EN 14358
$F_{t,rk,4.5}$	Characteristic pull out strength ø 4,5 mm (N) *	505	565	747	979	1.729	2.829	701	i.a. EN 14358
$F_{90,rk,4.5}$	Characteristic shear strength ø 4,5 mm (N) *	103	112	150	214	319	500	320	i.a. EN 14358
	* 40 mm anchoring length, 30 mm edge distance								
	Thermal conductivity rated value (W/mK)	0,0387	0,0377	0,0423	0,0459	0,0531	0,0650	0,045	EN 12667
	Water vapor diffusion resistance factor	~25							EN 12086-1
	Fire behaviour	E (B1) flame-retardant							EN 13501-1 DIN 4102-1
	Maximum water absorption 28 days	~5%							EN 12087

All COMPACFOAM material classes are DGNB listed.

DGNB Navigator

Return to recycle without expensive disposal costs.

We are happy to help the environment by accepting your COMPACFOAM off cuts back to our factory to be recycled. The COMPACFOAM off cuts will be used to make new COMPACFOAM and the process starts again.

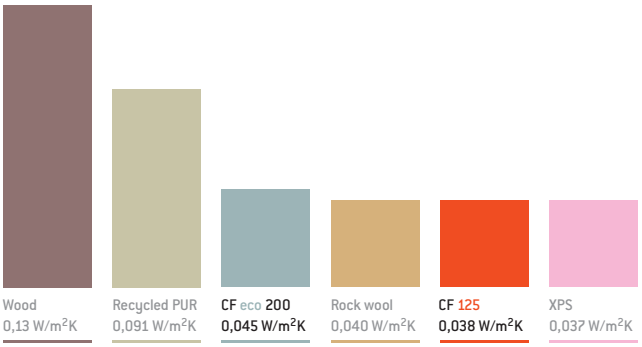
Help increase recycling in the construction sector!
Help the environment! Save on expensive disposal costs!

Properties.

Excellent thermal insulation.

COMPACFOAM, impressive thermal insulation which is twice as efficient as conventional PU recycled materials. Our innovative material provides excellent insulation performance with proven compressive strength. Reducing energy loss through thermal bridging. Reduced energy loss to help the environment.

Thermal conductivity chart



Lightweight.

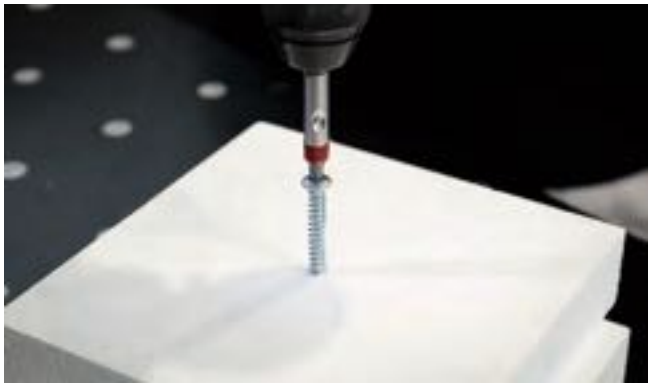
COMPACFOAM combines exceptional strength with minimal weight making it light and easy to use.

Rot resistant.

COMPACFOAM is mould and rot resistant making it a perfect long term solution even under extreme conditions.

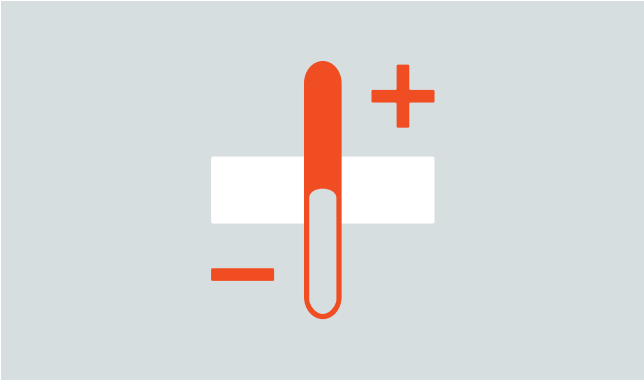
Mechanical fixings.

COMPACFOAM can be screwed together easily, without any pre-drilling. We recommend wood screws or window frame screws for a secure and stable fastening.



Dimensionally stable.

COMPACFOAM remains dimensionally stable under all conditions, regardless of temperature changes, frost or moisture. This property ensures unlimited long-term stability and extends the service life of the surrounding products.



Environmentally resistant.

COMPACFOAM is insensitive to moisture, temperature and frost, but is still permeable to vapour diffusion and breathable. This is particularly important when in contact with wood. Any moisture that may have entered dries out without causing damage. COMPACFOAM has excellent durability in damp and salty conditions and exhibits no changes of the material properties over time.

Inert material.

COMPACFOAM is pure EPS and does not emit any chemical substances. Dust and fumes generated during processing are non toxic.

High compressive strength.

COMPACFOAM is characterised by its excellent compressive strength. The product remains dimensionally stable while withstanding extreme loads providing a reliable long term solution.

Product formats.

COMPACFOAM is available in numerous shapes and sizes. Blocks, sheets, bars with and without mouldings, CNC, machined shapes, planed and sanded sheets for precise integration into sandwich panels and composite parts. COMPACFOAM is available in standard and custom thicknesses.
We offer many processing options to configure COMPACFOAM to suit your individual requirements.

COMPACFOAM Sheets.

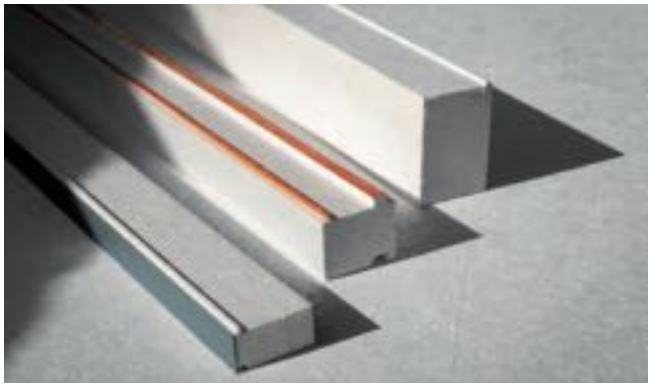
COMPACFOAM sheets are available in a selection of standard sizes (see table on the right) or in custom formats as required.

The maximum size is 6000 mm, with thicknesses ranging from 6 to 300 mm.

Machined profiles.

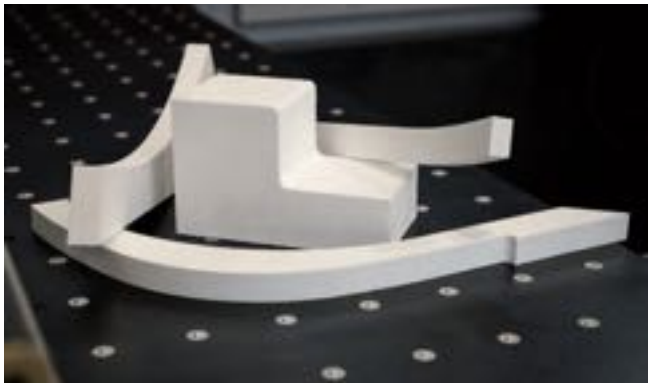
Large and small orders can be accommodated according to your requirements. Laminates can be glued to individual sides as required.

Milled profiles are made according to customer specifications with a tolerance of ±0.3 mm. Minimum size is 10x20 mm, and maximum size is 300x200 mm.



CNC machined parts.

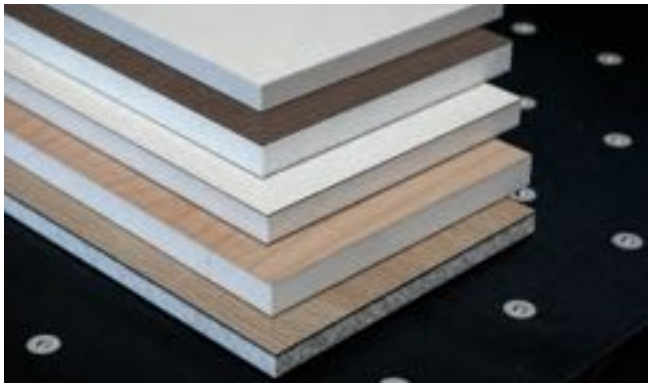
We can create 3D milled shapes with our high precision CNC machines.



Sanded and planed sheets for composite panel cores.

Sandwich panel cores are available instandard or custom thicknesses according to the design specification requirements.

The maximum size of core material is 3050mm x 1300mm in thicknesses from 6mm to 100mm. The maximum size for fully pressed sandwich panels is 2440mm x 1220mm.



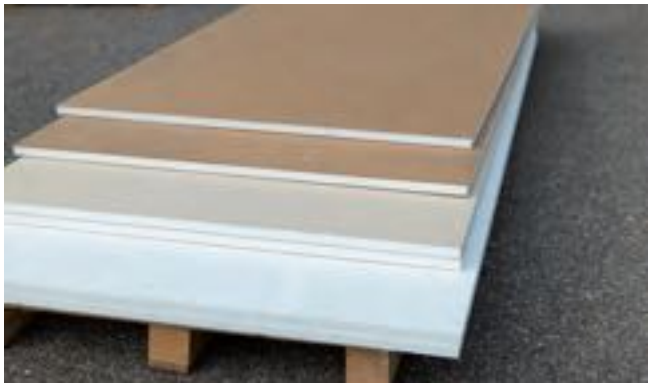
Standard sizes.

Material classes	Length in mm	Width in mm
CF 100	2350	780
CF 125	2250	760
CF 150	2150	680
CF 200	1950	660
CF 300	1700	600
CF 400	1600	450
CF eco 200	2350	1160

Laminated sheets and blocks.

Large and small quantities are available with the option of laminate being applied to any face.

Milled sheets are produced with a tolerance of ±0.3mm. Minimum size is 10x20 mm, and maximum size is 300x200 mm.



Mixed grade profiles.

COMPACFOAM grades can be laminated together to provide maximum structural support where necessary and lower density material where no load is carried This helps to reduce the cost of the profile without reducing the performance of the product.

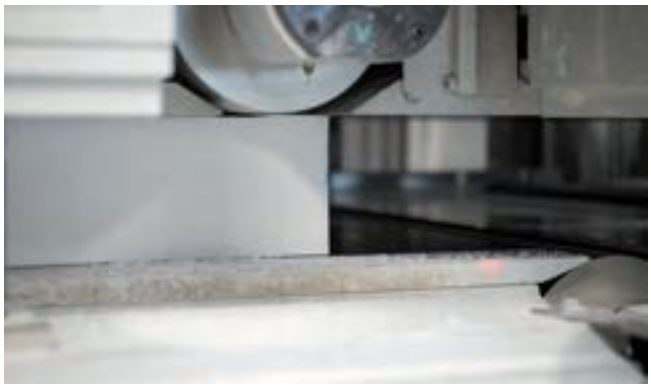
Machining and Processing.

Sawing.

COMPACFOAM can be easily cut with circular saws providing the saw blade has large tooth spacing as shown below.

Planing.

COMPACFOAM can be planed with precision to tolerances of ±0.3 mm. This accuracy makes it ideal for sandwich panels in furniture and yacht construction, where high-quality surfaces and exact dimensional stability are required.



CNC machining.

3D milling is performed with the highest precision on modern CNC machines. Economic production is ensured by our state-of-the-art machinery.

Sanding.

COMPACFOAM can be sanded with precision to tolerances of ±0.1 mm. This level of accuracy makes it ideal for sandwich panels in furniture and yacht construction, Providing a high quality finish to very tight tolerances.

Profiling.

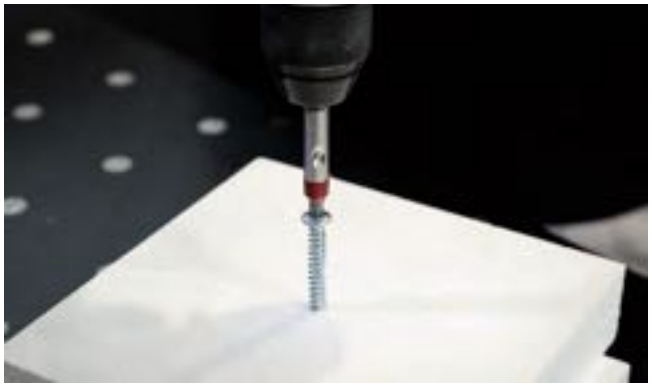
COMPACFOAM can be easily profiled using standard wood milling machines or four-sided planers. The material is minimally abrasive, allowing the use of cost-effective wood cutters or blanks in high speed steel (HSS).

Coating.

COMPACFOAM can be coated in a variety of ways, such as with PVC, HPL, kraft paper, MDF, laminate, veneers, and resins. These options expand our application areas and usage possibilities.

Mechanical fixings.

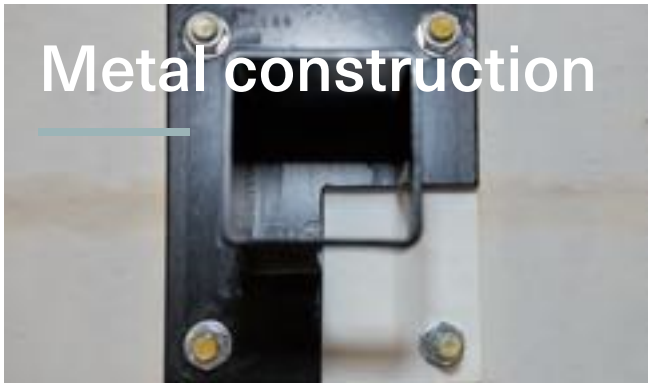
COMPACFOAM can be easily screwed without pre-drilling. We recommend using wood screws or window frame screws for secure and stable fastening.

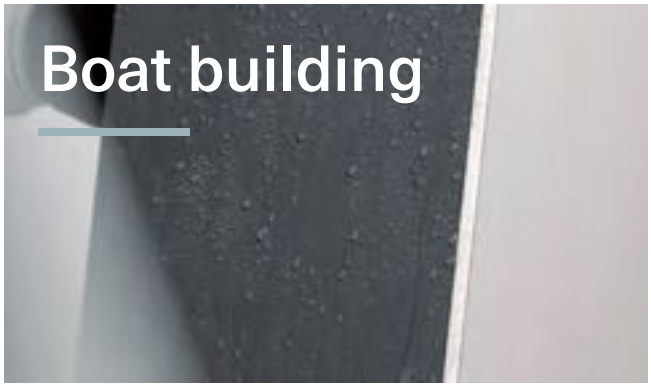


Laminated board edging.

Laminated board edging strips can be applied directly to the Compacfoam core using standard methods and tools.

Areas of application.





What is your area of application?

Contact us via e-mail
office@compacfoam.at

Our history.

Since our company startup in 2007, COMPACFOAM has established itself as a pioneer in high performance structural insulation material. At our 11,000m² production facility in Austria we manufacture innovative products that are extremely strong and also have excellent insulation properties with the added benefit of being lightweight. COMPACFOAM is ideal for use in window and facade construction as well as providing thermal breaks for structural steel fabrication and components for the mobile home and boat building industry.

Our in house laboratory and testing facilities enable us to support our customers quickly and easily as we have the facility to easily test the product suitability for new and demanding applications for COMPACFOAM. We regard quality assurance and product safety at the top of our criteria list. COMPACFOAM GmbH sees itself as a reliable partner from product inception to practical deployment.

Our team of experienced engineers is happy to assist you with the sizing and mechanical calculations of potential areas of use. What started as a small team with big ideas is now an internationally recognized partner for architects and engineers. Our success is based on innovation, the highest quality, and a clear focus on the needs of our customers.

Research and development.

HOLZ FORSCHUNG AUSTRIA

IBS Institut für Brandschutztechnik und Sicherheitsforschung

MPA Dresden

DGNB Navigator

iBMB MPA TU BRAUNSCHWEIG

baubook
Verified quality at
www.baubook.info

tgm Staatliche Versuchsanstalt
Akustik und Bauphysik
FEDERAL INSTITUTE OF TECHNOLOGY ACOUSTICS AND BUILDING PHYSICS

performance lab surface finish testing

oeti

ofi FORTSCHRITT IN GUTEN HÄNDEN

COMPACFOAM

10/2024

Our doors are open to you for questions and further information.

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