

Freva GRP Clean Room Panels

for building clean and sterile rooms





Smooth, stable GRP surfaces for highly sensitive work areas

Clean room technology – protecting people and products

In many industries, being able to work and manufacture products in clean-room conditions is an essential requirement in order to guarantee a product's perfect functionality and/or the safety of the people working on it. Companies and institutions in the fields of food production, medical research and treatment, medicine manufacturing, genetic technology, microelectronics, semiconductor manufacturing, optical and laser technology as well as nano-technology all depend on the highest cleanliness standards. When planning and building clean rooms, the choice of wall and ceiling surfaces is just as important as the advanced technical requirements.

High standards for clean room walls and ceilings

Walls and ceilings in clean rooms must be smooth and free from cracks, and easy to clean. In addition, they need to be resistant to standard cleaners and disinfectants, and must have flush

transitions between structural elements wherever possible. Cavities, edges and projections are to be avoided.

Freva GRP clean room panels are the perfect system solution

With their outstanding hygienic properties, Freva clean room panels are perfect for installation in highly sensitive work areas. The panels have an energy-saving EPS insulation core and are manufactured specifically for each project, allowing for custom length, thickness and coating

combinations. With our HygieneTop hard jointing, this creates a panel system that reduces the joint area to a minimum and reliably seals the clean room. Thanks to their exclusive use of plastic coatings, Freva clean room panels can also be used for special applications, such as metal-free clean rooms.

Freva GRP clean room panels

Insulation core	EPS 040 / 035 or PIR (Freva PIR combo panel)
Coatings	GRP/GELCOAT (available with optional Freva AntiBac – antibacterial coating); reverse can be combined with other coatings, e.g. GRP, galv. steel plate, aluminum foil, PVC
Thickness	80 to 240 mm
Dimensions	Width: 1200 / 1180 mm, length: variable
Element connection	Tongue and groove
Joint covering	Hard jointing with 2C EPU 25 joint compound
Fire protection class	B2 - DIN 4102, Part 1

Pore-free GFK/GELCOAT surface finishing

Our GRP/GELCOAT finishes are especially suitable for use in clean rooms, e.g. the fabric-reinforced GRP/ GELCOAT 1.5 mm or GRP/GELCOAT 2.0 mm. The high-quality GELCOAT finish also seals the GRP layer and is therefore often used in rooms with high hygiene requirements. The surface is light-colored and smooth, easy to clean and resistant to various salts, acids and chemicals (resistance list available upon request). GRP is distinguished by its high stability and scratch resistance.

Maintenance-free hard jointing with Freva HygieneTop

Our specially developed hard joint compound EPU 25 has been used in the food industry for many years already. In contrast to the permanently elastic sealing compounds that are normally used in clean rooms, Freva HygieneTop hard jointing does not need to be regularly replaced. The 2-component joint compound is applied to the joint, spread out with a smoothing spatula, and then

hardens completely. All joint transitions are reliably sealed. Corners can be sealed in two different ways:

Hygiene corner



Gluing a triangular chamfer into the 90° corner creates an angled corner with a 45° angle.

90° corner



Joint compound is applied to the 90° corner and shaped into a chamfer.

Microbe-free surfaces thanks to Freva AntiBac

Especially high hygiene requirements call for extraordinary materials. Upon request, we can also supply Freva clean room panels with an antibacterial surface. Freva AntiBac has all the same benefits as a “normal” GRP coating, and is also equipped with an antimicrobial GELCOAT finish with nanosilver particles. The highly effective silver additive acts as a permanent disinfectant, and significantly improves hygiene and sterility. Freva AntiBac lastingly and efficiently neutralizes more than 99.9% of all bacteria on its surface.

Assembly and installation of clean-room-compatible accessories

Thanks to its low element weight and the custom-fit tongue and groove system, the panel system is easy to assemble. With the appropriate tools, all of the necessary cutouts and pass-throughs can be made in the panels. Doors, windows, airlocks, lamps and air filters can easily be installed flush with the panel.



◀ Before jointing: panel edges are masked with adhesive tape to allow for precise jointing.

Clean room wall with finished hard jointing and flush door installation ▶





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