The thoughts of Napur Architect Ltd:

The Duna Arena was built under the tutelage of an architectural office; Napur Architect Ltd. in a record time of two years as an extension of the existing swimming pools for the needs of professional and recreational sports. The investment took place till the FINA World Swimming Championships in Budapest. The arena has a two-layer facade. The primary thermal layer is the Base, the Backing-wall and the secondary decorative layer is made of profiled plain lacquered aluminum sheets. "We preferred creating a natural, instead of an urban structure on the banks of the Danube that is capable of reacting to the river's various moods. In sunlight, it's shiny and cheerful, while functioning as a sanctuary in gloomy, foggy weather. Therefore, the reflective surface that mirrors and establishes a discourse with its surroundings fits into the surface of the Danube with its raw, silent surfaces," said Ferencz, Marcel DLA, one of the lead Architect beside Détári, György DLA.

REDUCE WASTE AND SAVE TIME BY QUICKLY INSTALLING A PREFABRICATED LOAD-BEARING BACKING-WALL SYSTEM

Trimoterm FTV product for Backing-wall insulated façade system with an extreme load-bearing capacity of up to 60 kg/m^2 is prefabricated in a controlled environment. BASE, as one component Backing-wall system ensures quick installation with fewer workers and reduces construction waste compared to Build-up systems.

SAVE MONEY BY CHANGING THE BUILDING APPEARANCE DURING OPERATING TIME

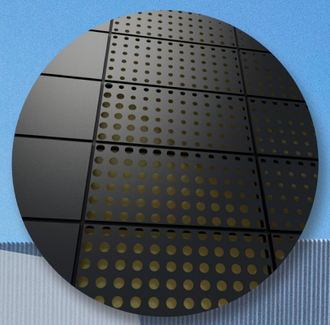
Trimoterm FTV product for Backing-wall insulated facade system enables completely compatible solution for various final cladding and ensures changing the building appearance during the operating time and save money in term of TCO.

WELL-BEING COMFORT AND SAFETY GUARANTEED

Trimoterm FTV product for Backing-wall insulated facade system provides a flat internal surface and stable climate with ultimate airtightness and watertightness, exceptional thermal transmittance, and guarantees the safety of people and goods with reaction to fire classification A2-s1, d0.

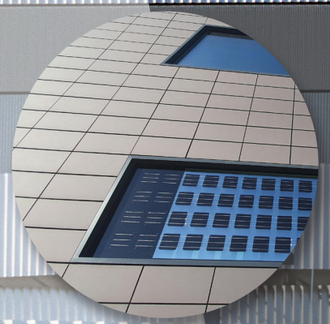
Unlimited choices of final claddings

The beauty of architecture is in the materials and details. BASE as Backing-wall insulated facade system solution is a canvas for architects, to design architecture with unlimited choices of final claddings. An average weight of the additional final cladding is in the range of up to 20 kg/m^2.



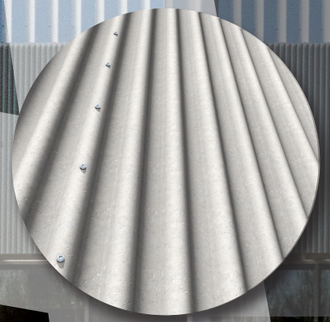
BE CUBIC

Qbiss Screen, Cassettes, Perforated Cassettes, ...



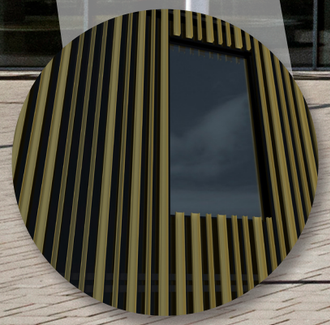
GO SQUARE

Brick, Tiles, Glass, ...



DO ORGANIC

Profiled Steel Sheet, Membrane, Mesh, ...



SO LINE

Wooden Slats, Metal Rails, ...

TRIMOTERM

BASE
BACKING-WALL
VERTICAL

Completely Compatible Solution
For Various Final Cladding

Brand new BASE as Backing-wall Insulated Facade System solution guarantees true architectural expression as a main structural carrier wall for various final cladding.

The first fully tested mineral wool cored panel for Backing-wall system including optimized details design was done for the mechanical behavior in collaboration with the independent institutions; iS-engineering GmbH and Technische Universität Darmstadt, Germany - Institute for Steel Construction and Materials Mechanics for testing.

BASE, BACKING-WALL
INSULATED FACADE SYSTEM
TRIMOTERM FTV

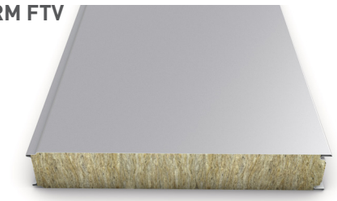
Benefit without compromise

System Description

The BASE solution represents the so-called Backing-wall Insulated Façade System, which is made up of customized unique product formula of Trimoterm FTV panel. The robust system works as a load-bearing wall, where an additional final cladding is fixed through the Omega Rails. The internal steel sheet of the panels remains intact in the whole central area, as in this area the Omega Rails are fixed only on the external steel sheet. The system is flexible and modified for the building for horizontal or vertical installation. Contact us for bespoken custom-made product formula of Trimoterm FTV for your building at your location.

Product Specification

TRIMOTERM FTV panel



TRIMOTERM FTV longitudinal joint

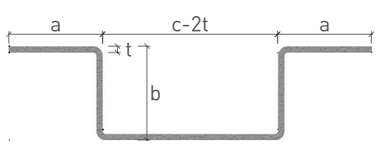
INSTALLATION	Vertical	
COLOR RANGE	Bright, Medium, Dark	
COLOR PROTECTION	Northern Europe - Zone 1 Inland locations	Colorcoat Prisma
WARRANTY	Colorcoat Prisma	up to 25 years
UNIT DIMENSION	T (mm)	200-240
	M (mm)	1000 - 1200
	L (mm)	by project
EXTERNAL STEEL SHEET	Thickness t (mm)	0.6 - 0.7
	Profile	G
INTERNAL STEEL SHEET	Thickness t (mm)	0.6
	Profile	G, S, V, V2, M2, M3
FEATURES	Mineral Wool core (EN 14509)	Power T
	Weight (kg/m²)	27.0 - 30.6
	Reaction to fire	A2-s1, d0
	Fire resistance (i→o)	EI 90*
	Thermal transmittance U (W/m²K)	as low as 0.16
	Airborne sound insulation $R_w(C;C_{tr})$ (dB)	up to 30 (-1;-3)
	Water permeability (EN 14509)	class A (1200Pa)
	Air permeability (EN 14509)	n=1.5: C=0.00005
	Burglary resistance class (EN 1627)	RC3
	Certificates	CE, LPCB, FM

*Valid for elements up to 6 m span (according to EN 1364-1) with secondary façade weight up to 45 kg/m².

OMEGA Rail

DIMENSION	min.	max.
a (mm)	30	AR*
b (mm)	30	AR*
c (mm)	60	AR*
t (mm)	2.0	6.0
l (mm)	520	4000

AR* as requested by project

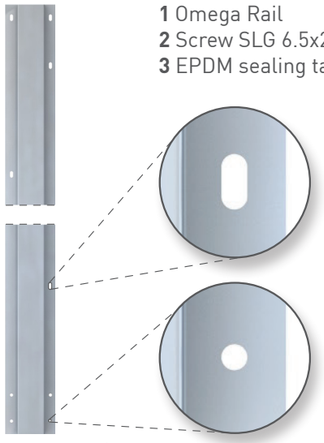


Upper side

Slotted hole Ø 7 x 15
SLG 6.5x20 screws carry the load from wind suction acting on the final cladding and transferred through these into the panel through the outer steel sheet. Screws SXC 6.3xL through top two slotted holes are used to fix entire system to the structure.

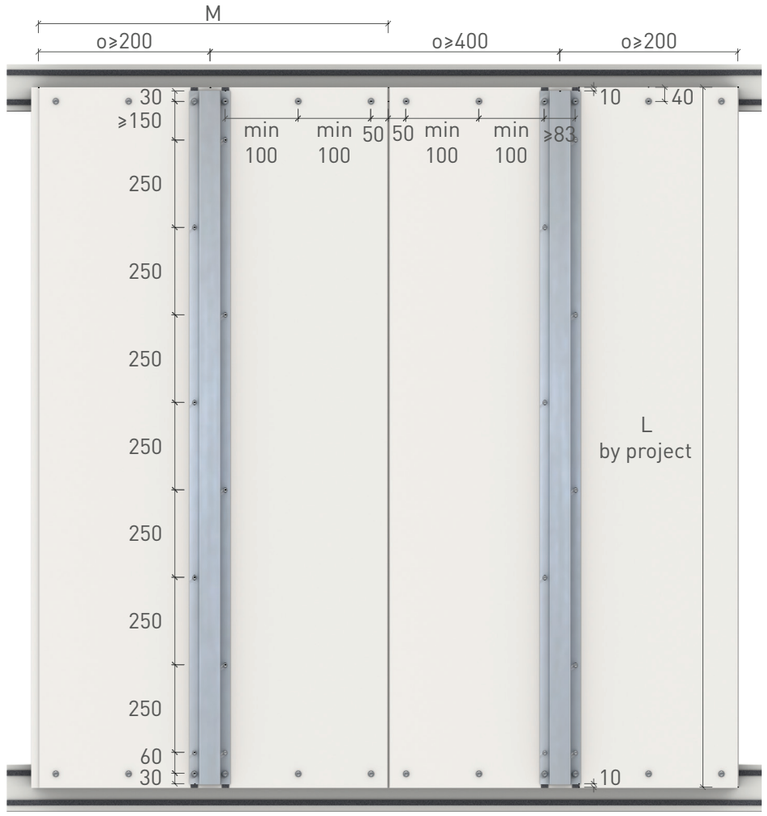
Round hole Ø 7
Two SLG 6.5x20 screws carry the weight of the final cladding and its own substructure. In addition, the two bottom SXC5 6.3xL screws additionally fix the entire system to the structure.

Bottom side

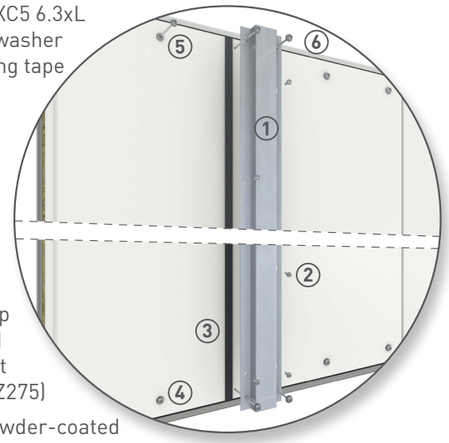


System Components and Dimensioning Guidelines

- **Trimoterm FTV panel** is high-quality fireproof and sustainable product with 99% recyclability.
- **Fixing material** for panels has load-bearing capacity according to approvals for Trimoterm FTV (AbZ Nr. Z-10.49-624); for Omega Rails has load-bearing capacity according to testing and approval by iS-engineering GMbH in line with ETA - 10/0198.
- **Sealing material** continuously laid ensures airtightness and water tightness at the joints between the structure and the panel and between the panel and Omega Rail.
- **Steel sheet flashings** finalize details according to the Backing-wall insulated facade system.
- **Omega Rails** is substructure that carries the weight of the final cladding.



1 Omega Rail
2 Screw SLG 6.5x20
3 EPDM sealing tape
4 Screw SXC5 6.3xL
5 Sealing washer
6 PE sealing tape



OMEGA Rail Material

I. **C3:** hot-dip galvanized steel sheet (DX51D + Z275)
II. **C4:** I. + powder-coated

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Architectural details
BACKING-WALL
Insulated
Facade System
Trimoterm FTV

Your Input is our Output

Trust the basic input data to our Trimo design team and we will provide you efficient product formula and customize the Trimoterm FTV product and Omega Rails to your needs for your building at your location.

Input data

Design wind load

building location
building dimensions
cladding location
base wind speed
terrain category

+

Final cladding data

size axbxc
weight
gap distance
fixing method
substructure dimension
substructure material
temperature difference

The first fully tested mineral wool cored panel for Backing-wall system including optimized details design was done for the mechanical behavior in collaboration with the independent institutions; iS-engineering GmbH and Technische Universität Darmstadt, Germany - Institute for Steel Construction and Materials Mechanics for testing.

CONTACT US

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