**ROMA INSULATION SYSTEMS** 

# Industrial and building construction

Quick-assembly insulating panel, type P

New U-values!

SO EVERYTHING FITS. ROMA



The ROMA quick-assembly insulating panel – a lightweight powerhouse Our proven industry and commercial construction components offer the highest quality for all your structural, statics and architectural requirements.

The construction principle of the ROMA quick-assembly panel is based on a force-locked tongue-and-groove joint of the PIR insulating core with two

metal cladding layers as well as on our unique ROMA connection technology. This excellent composite structure ensures that our lightweight, quickassembly insulating panels are extremely rigid and stable at an effective width of 1150mm.

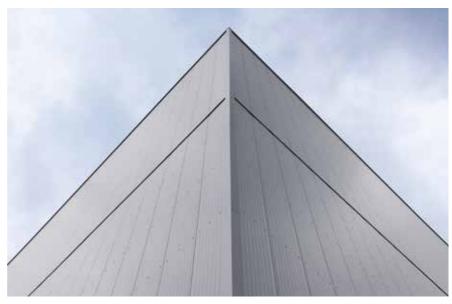
Depending on panel thickness, this enables unusually wide purlin spacing of up to 10m, providing two advantages:

You will need less material for the base construction and require less time for assembly.

Last but not least: It is easy to combine efficiency with attractive designs using ROMA products. Our wide selection of materials, surfaces and colors will help you achieve a high quality building design.



- Two high-quality steel cladding layers
- Excellent thermal insulation with a rigid PIR foam core
- Nine insulating thicknesses
- Available in various lengths of up to 20m
- Can be laid horizontally or vertically
- Highly precise panel fit
- Remilling tongue and groove after cool-down



High-bay storage warehouse with panel laid vertically

## Assembly and connection technology

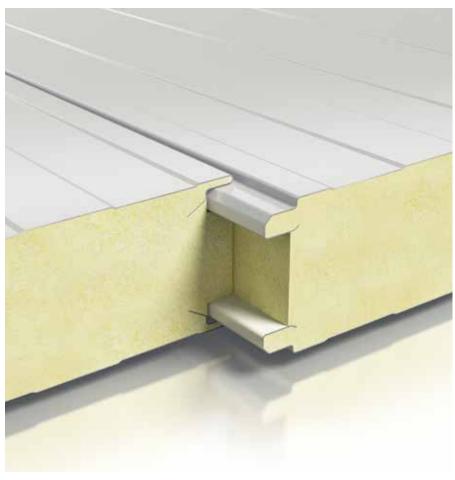
## Intelligent joint technology revolutionizes assembly

Rapid and trouble-free assembly is critical for the construction of industrial buildings. In addition most projects require outer walls to be airtight and free of thermal bridges. Our ROMA joint technology system with quick-assembly insulating panels has an excellent track record in industry. These panels can be easily and precisely fitted. They interlock with an airtight seal and if required also include a diffusion-resistant design, making them suitable for many different applications.

#### The utmost manufacturing precision

The excellent composite properties of our panels are attributable to the uniquely designed double tongue-and-groove joints and high manufacturing precision.

ROMA rigid foam profiles are not milled until after each element has completely cooled down. The labyrinth construction and four sealing options ensure that joints are free of thermal bridges – a must for achieving energy efficiency and an optimal room climate.



Double tongue-and-groove joint



ROMA quick-assembly insulating panels are suitable for all building, load-bearing and connection methods.

### Rapid installation

Low weight, wide spans, simple joint technology and a logical installation procedure facilitate rapid assembly.

Purlin spacing of up to 10m minimizes the base construction – saving valuable assembly time and reducing costs.

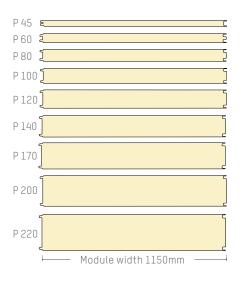
## Efficient design



Horizontal laying - screw heads are covered by pilasters.

## Top insulation with extremely narrow walls

Energy-saving regulations continue to require a high degree of thermal insulation. Thanks to the excellent insulation possible with rigid PIR foam, ROMA wall panels meet all thermal insulation requirements – with a narrow wall design. With nine insulating thicknesses ranging from 45mm to 220mm, ROMA can deliver highly efficient wall types for any structural design task.



ROMA quick-assembly insulating panels come in nine thicknesses from 45mm to 220mm.

## Versatile construction methods – one system

You can choose any construction method to use with our system. Whether you use a load-bearing construction made of steel, aluminum, reinforced concrete or wood: ROMA construction elements easily adapt to the method used. Planners can choose from many building solutions and builders can achieve cost savings thanks to the ease with which roof and floor connections can be made.

#### Artistic liberty for architects

ROMA sandwich panel elements offer a wide range of design options. Our construction system makes it possible to use various materials, surface structures and colors with each surface design.

#### Flexible partition wall systems

Whether as an internal or external wall: The ROMA system provides maximum flexibility for your building project. If there is a change in your work processes, the ROMA partition wall system can be disassembled at any time without waste and reconfigured to match your space needs.

## The perfect integrated door for your needs

At ROMA you can also order the right hinged steel door to go with your type P insulating panels. Because the door width matches the width of the vertical panel grid perfectly, assembly is easy and requires no cutting. You save 2.5m² of panel surface where the door is placed. For more information on this practical solution, see our "Steel hinged doors" brochure.



## A wide range of applications and designs



Various building designs using ROMA quick-assembly insulating panels (the Oberhof ski hall)

#### Many different applications

Our customers choose ROMA construction elements over and over again for a wide variety of applications. Planning grids which work in industry, economic panel lengths and wide distances between purlins cover nearly any floor plan solution or building height. Builders can choose a vertical or horizontal configuration for even the smallest commercial projects as well as for a wide variety of structures including large-scale industrial buildings.

Wherever you need doors, windows or other wall penetrations, our sandwich panel system gives you complete freedom of choice – even during construction.

#### Extended service life

Our robust metal cladding layers ensure high impact and corrosion resistance.

Three surface profiles are available:

L = profiled M = microprofiled

E = smooth



Design L

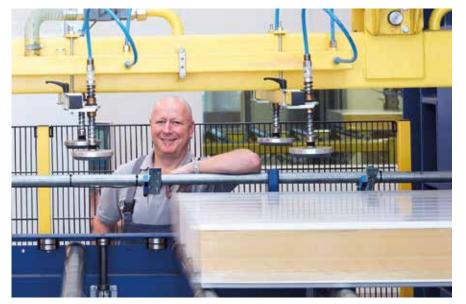


Design M



Design E

## ROMA. Quality Made in Germany.



 $Ludwig\ Friedel\ has\ been\ responsible\ for\ ous tanding\ product\ quality\ at\ ROMA\ for\ 30\ years.$ 

### Choosing ROMA is choosing quality.

Because ROMA quick-assembly insulating panels are manufactured on four of the world's most advanced double conveyor belt production lines. Continuous computer-added monitoring of all quality parameters in production and the exclusive use of high quality raw materials ensure our sandwich panel elements are of the highest quality. Our continuously high production output at our plant ensures that a high level of consistency and precision is achieved.

Our products undergo a comprehensive range of material and component tests during all phases of production.

## Properties, technical data, product overview

ROMA is a leading manufacturer of wall and roof sandwich panel elements for industrial and cold-store construction.

We develop, manufacture and market complete systems for industrial construction engineering as well as coldstore and deep-freeze cell and cell-door construction. Climate test chambers, cleanrooms, and specialized climate-control applications are also part of our product portfolio. We have over 70 years of success and experience in highly specialized construction sectors. Ever since its founding, our family-run company has always manufactured top-quality products Made in Germany.

#### **Approval**

General building authority and building law approval for use as walls/roofs.

Notification of approval Z-10.4-549 of the DIBt, Berlin and CE marking in accordance with DIN EN 14509.

# Planning details Please consult our most recent technical data sheets for detailed planning specifications.

www.roma-daemmsysteme.de/



#### We offer you a wide range of attractive colors.

Please see our color chart for more information on cladding layers and color options.

Cladding layers	
Standard version:	Galvanized sheet steel, lightly profiled on both sides, with
	one or two sides microprofiled on request. Polyester-coated
	surface finishes RAL 9001 9002 9006 9010

Fire	tests
D	B1 acc. to DIN 4102 – fire-resistant
СН	Class 5.3 acc. to VKF Bern
EU	Euro class B-s2, d0
FM	FM Approval

System dime	ensions
Unit width	1170mm
Module width	1150mm
Available lengths	Up to 20m, depending on panel thickness
Custom sizes	On request
Insulating thicknesses	45, 60, 80, 100, 120, 140, 170, 200, 220mm

Weights, thermal insulation and spans						
ROMA quick- assembly insulating panels	Insulation thickness	Panel weight approx. <sup>1)</sup>	<b>U-value</b> certified to EN 14509 with joint <sup>21</sup>	Roof element spans, self-supporting single-field loadbearing units depending on load type <sup>31</sup> EN 14509 without bending		

Туре	mm	kg/m²	W/(m²·K)	m	
ROMA P 45	45	11.1	0.540	to 5.04	
ROMA P 60	60	11.7	0.388	to 6.08	
ROMA P 80	80	12.5	0.285	to 7.41	
ROMA P 100	100	13.3	0.226	to 8.44	
ROMA P 120	120	14.1	0.187	to 9.19	
ROMA P 140	140	14.9	0.160	to 9.98	
ROMA P 170	170	16.1	0.131	to 10.87	
ROMA P 200	200	17.3	0.111	to 11.46	
ROMA P 220	220	18.1	0.101	to 11.80	

 $<sup>^{\</sup>rm 1)}$  Element weights refer to the standard version (external 0.6mm/internal 0.5mm)

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 $<sup>^{2)}</sup>$   $\lambda_{declared} = 0.022 [W/mK]$ 

<sup>3</sup> Including repair load of P = 1.0kN, both sides t = 0.6mm, profiled on both sides