

Isolamin building/industry

**Complete wall systems
for all environments.**

 **ISOLAMIN**
By PartGroup

Isolamin industry system

Complete wall system for all environments.

A panel normally consists of a core of non-flammable cross-layered mineral wool in varying densities with good thermal properties and high resistance to fire. With exterior surfaces of painted or PVC-clad galvanized steel plate, alternatively aluminum or stainless steel, the result is a self-bearing panel with high durability and excellent sound reduction. With the profile design of the panel edges, Isolamin can offer one of the market's absolutely most useful and flexible joint systems.



Isolamin develops its products in close cooperation with its customers and suppliers, and adapts designs to various local requirements. Each customer is offered a customized solution for every project. With its sandwich constructions, the company is market leading in sound reduction, sound absorption and flexibility. Isolamin can produce over 400,000 m² annually and the products are sound and fire tested by an internationally recognized testing institute.

Custom deliveries

The wall system is normally delivered with custom height and width modules as specified by customer drawings. This means quick installation and avoidance of cutting at installation sites. Deliveries are often in the form of systems that include our own modular windows and doors. All deliveries can be kit-packaged into systems according to customer preferences.

Decorative finishes

The Isolamin surface finish program includes everything from a transparent lacquered galvanized finish, painted finishes or a PVC-clad decorative finish in a variety of colors, to stainless steel plate or lacquered aluminum for demanding environments.

Thermal insulation

The panels are supplied in thicknesses appropriate for the environments in which they will be installed. If the demand is for high thermal insulation, panel thickness is increased. Alternatively, we can replace the mineral wool core with EPS insulation if there are no demands for fire insulation or sound insulation.

Acoustical properties

The wall system fulfills the market's most stringent demands for sound reduction and sound absorption. The various panel designs handle sound reduction from 28

up to 52 dB Rw. The highest sound reduction is attained with a panel thickness of 70 mm. When maximum sound absorption is needed, the panels are supplied with perforated surfaces and membranes between the sheet metal and insulation. This solution also prevents the escape of particles from the insulation.

Fire safety

The wall system with mineral wool is entirely nonflammable and fulfills fire safety demands up to EI60. The polyester-painted surface finish is entirely free from halogen, and PVC-clad surfaces comply with surface finish class 1 in accordance with the guidelines from the Swedish National Board of Housing, Building and Planning.

Durability

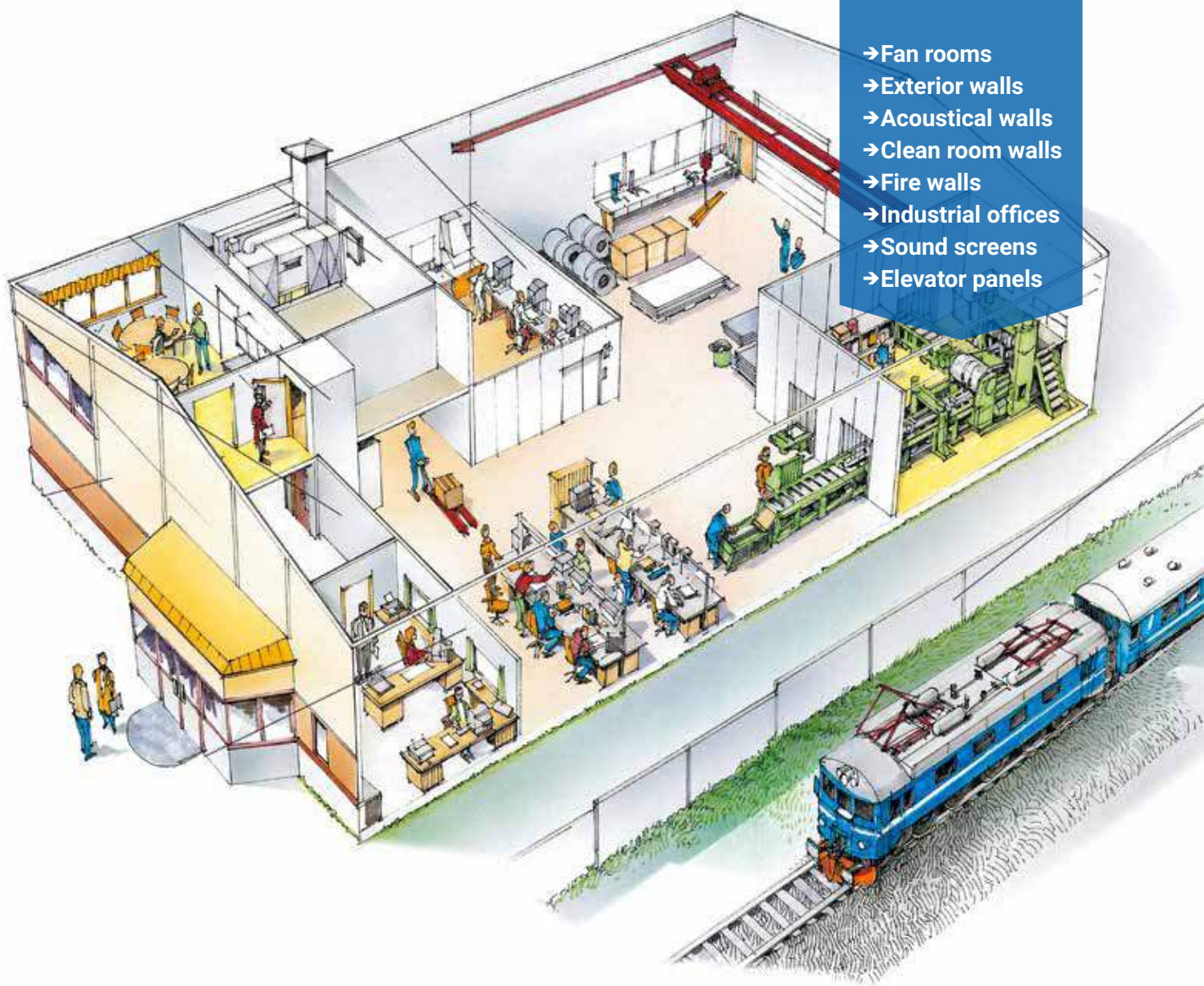
The Isolamin wall system is manufactured with high density, cross-layered mineral wool, glued in staves. This produces an extremely strong sandwich construction that makes the installation selfbearing. Costly systems with joists are thus avoided.

Flexible and easy installation

The Isolamin wall system has been designed to handle actual job site conditions and to facilitate installation. The systems' flexibility provides the opportunity to easily adapt to existing dimensions at the job site and to make last-minute changes. Components can be easily cut and drilled onsite. The profile system also includes solutions for flush installations, with no components projecting from wallsurfaces.

Logistics

Isolamin AB ships in custom packaging to any location. Our shipping department has many years of experience with both land and sea transports, including all of the necessary documents and transfers.



- Fan rooms
- Exterior walls
- Acoustical walls
- Clean room walls
- Fire walls
- Industrial offices
- Sound screens
- Elevator panels

Isolamin joint system C – the market's most advanced

- Durable construction. Stable installation with extra strength at joints.
- Flush installation. Full, flush wall surfaces without projecting joints or profile edges.
- Tolerance friendly. Each joint can manage tolerance deviations of up to 2 mm – a major-benefit during installation.
- Each panel can be removed without having to remove other panels.
- Pressure tested and splash resistant joint system.
- Smart alternative profile solutions when flush wall surfaces are needed.
- Supplied with finished L-corner and T-corner panels for installations with stringent demands on tightness, smooth surfaces and dust-free environments.



Isolamin joint system P – flexible tongue and groove system

- Joint system with capability for both vertical and horizontal installations.
- Quick installation without joint profiles.
- Supplied with water-tight seals in joints for vertical installations outdoors.
- Grooved panel exteriors with P-joint if preferred.



Separated indoor environments

Isolamin wall system for acoustical buildings.

Isolamin industrial buildings is an easy to install interior building system for rapid establishing. The installation time is normally cut to one fifth compared with traditional building methods. Isolamin's flexible wall system has excellent acoustical properties. Panel cores are adapted to comply with customers' specific acoustical requirements for each project.

Together with the extensive design and specification service offered the entire project will be safe and easy to manage. The concept consists of Firewall 30, Firewall 60 and Economy wall.

Adjusted to customer needs

The only limit is the customers need for space and function. Isolamin will supply wall and ceiling panels, windows, doors and profiles in a complete system with no need for adjustment on site. Installation plans, manuals and other necessary documents are included in each delivery. The Isolamin staff design and deliver, in cooperation with the customer, the function and quality needed.

Noisereduction

The system is tested and approved for sound reductions up to 49 dB and can, if needed, be equipped with perforated steel sheets for even better sound absorption. The panels are, at the same time, securing a full integrity. Due to the sandwich design, with a core of insulation material, a comfortable indoor climate is obtained in for example semi-heated storages, delivery sheds and hangars. Each panel can be exchanged and the entire system can be moved and reused.

Sound reduction for the panels ranges from 28 up to 52 dB Rw, depending on the choice of thickness and configuration. If one side is perforated, sound reduction normally increases to the highest sound absorption class – class A. Isolamin always supplies perforated panels with a membrane glued between the sheet metal and the cross-layered insulation. This solution prevents the escape of particles from the core material. All panel variants Isolamin wall system for acoustical buildings and are tested in a sound lab and diagrams show exact results.

Customized

Isolamin customizes the wall system, in regard to panel cores and dimensions, for every delivery.

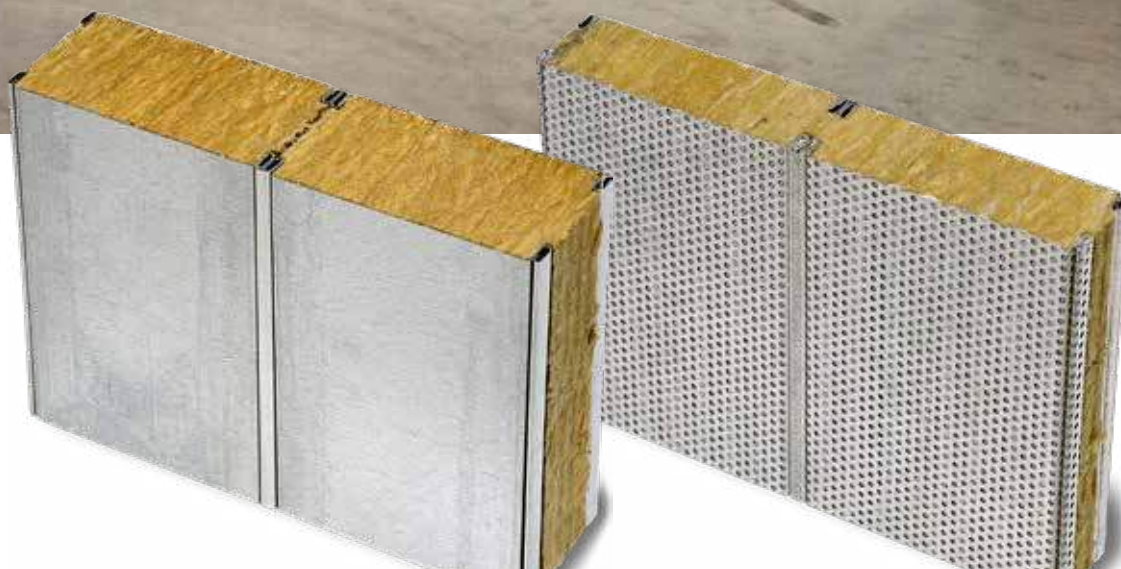
Sound measurements are conducted for each project. Diagrams from these measurements, along with the customer's dampening needs, constitute the basis for panel specifications and configurations. Isolamin's acoustical deliveries often include module-adapted doors and windows with the same sound reduction properties as the wall system. Upon request, our sales department can prepare complete material specifications with installation drawings to enable optimal installation speed.

Panel 33CL-80

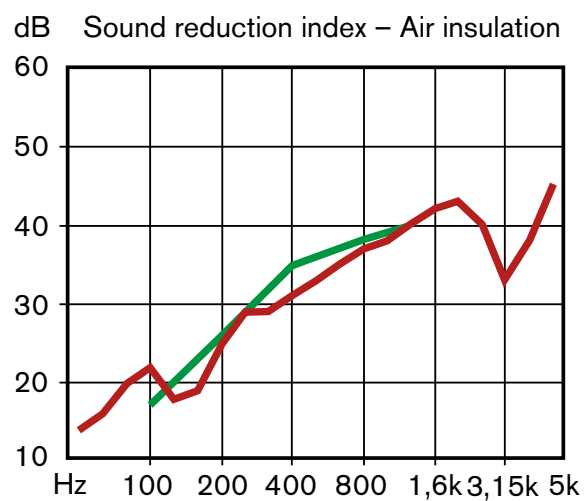
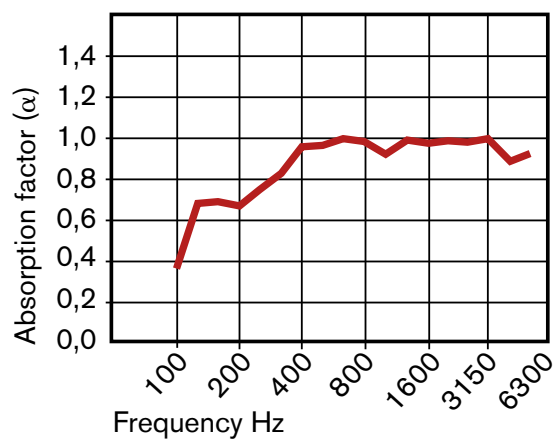
To the right is an example of sound reduction and sound absorption for our 33CL-80 mm panel in the perforated version. This panel has a sheet metal thickness of 0.7 mm and a core of cross-layered mineral wool with a sound absorption density of 180 kg/m³. In the single-sided perforated configuration, this panel has sound reduction of 38 dB Rw and attains absorption class A.

This is an example of why Isolamin is market leading in deliveries for all types of acoustical enclosures. Industrial offices, machinery buildings, break rooms, control rooms, screen walls around welding areas, perforated peripheral walls and acoustical ceilings are just some of the examples of application areas where our products improve work-site environment and comfort. Over the years, Isolamin has delivered products for most application areas and we gladly share our experiences with you.





PA33CL-80 mm, one side perforated



Indoor environment

Isolamin wall system for fan rooms and ducts.

Isolamin has pressure-tested wall system C with the associated profile system, including an in-house produced inspection door and attained type approval up to sealing class D according to the EU standard 1507:2002; sealing class D according to VVS AMA 98, 57 air treatment system; and sealing class C according to Eurovent 2/2-1996.

A complete built-in system

The fan room system is a complete built-in system with the walls, ceiling, door and attachment profiles necessary for installation. The panel has also been tested by internationally approved testing institutes in regard to:

- Fire: Class EI30, EI60
- Sound reduction: 33 dB Rw
- Sound absorption: Class A (one side perforated)
- Durability: An element can withstand up to 2000 Pa on a 3-meter span.

Sound tested

The fan room system is even sound tested for use in ventilation ducts with parts of duct elements having perforated interiors. Consequently, the Isolamin wall system can be used instead of baffle dampers and provides the following advantages:

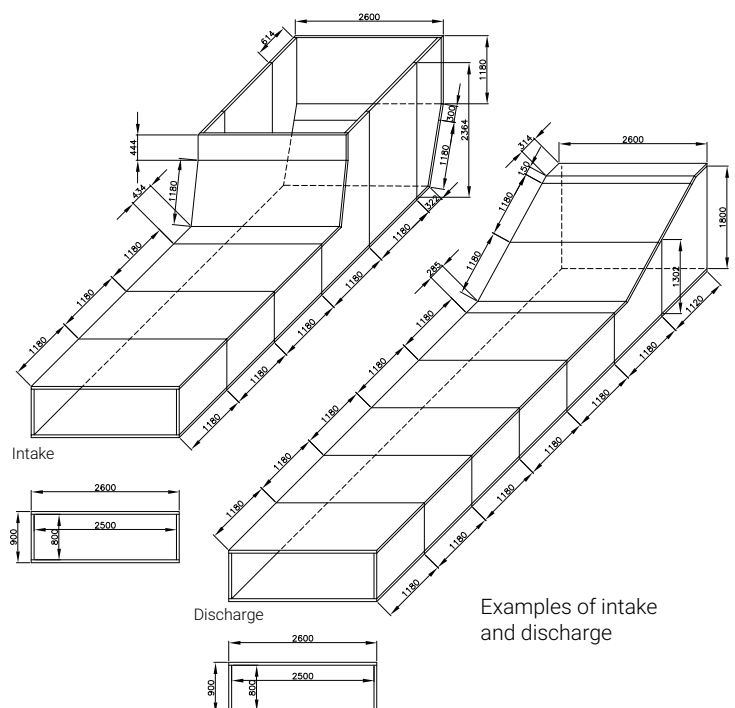
- Substantial sound reduction at low frequencies.
- No pressure drops.
- Low operating costs.
- No resonance.
- High reduction factor in duct walls.
- Condensation insulation attained for exhaust and discharge ducts.
- No valves are needed to lift the sound damper.
- Elements can be ordered to size for quick installation.

Very durable

Besides the C-joint system's installation advantages, the elements are very durable and minimize the construction's load-carrying structure.

The Isolamin fan room system is intended for enclosing constructions for fan rooms and ventilation ducts subjected to over-pressure or underpressure loads. For non-load carrying constructions, there are other suitable products in our assortment.

For more information on the system, choice of materials, specifications and installation, please refer to Isolamin's fan room manual.





The Isolamin fan room system complies with sealing classes according to the following for 33CL50:

- Sealing class C (max. pressure 1600 Pa) according to EUROVENT 2/2 1996
- Sealing class D (pressure class 2) according to prEN 1507:2002 and VVS-AMA
- For configurations with perforated sheet metal, sealing class B is fulfilled according to EUROVENT 2/2 1996.

Panel	PA 33CL50
Thickness	50 mm
Weight	21,1 kg/m ²
Module width	565 mm, 1180 mm
Module length	Max 6000 mm
Fire safety class	Ei30
Sound reduction	33 dB Rw

Panel	PA 33CL50P*
Thickness	50 mm
Weight	19,1 kg/m ²
Module width	565 mm, 1180 mm
Module length	Max 6000 mm
Fire safety class	Ei30
Sound reduction	34 dB Rw
Sound absorption	Class A

Isolamin fan room system fulfills corrosion classes as follows:

- Kl. C2 – Z100 galvanised steel
- Kl. C3 – Z275 galvanised steel
- Kl. C5 – stainless steel alt Magnelis Z310

Panel	PA 33CL80
Thickness	80 mm
Weight	26,1 kg/m ²
Module width	565 mm, 1180 mm
Module length	Max 6000 mm
Fire safety class	Ei60
Sound reduction	33 dB Rw

Panel	PA 33CL80P*
Thickness	80 mm
Weight	24,2 kg/m ²
Module width	565 mm, 1180 mm
Module length	Max 6000 mm
Fire safety class	Ei60
Sound reduction	38 dB Rw
Sound absorption	Class A

* Perforated sheet with 3 mm holes, Delta sixth



Separated outdoor environments

Isolamin noise and privacy screens.

Isolamin noise screens are traffic noise screens, developed in cooperation with the Swedish National Road Administration and leading acoustics consultants. They feature high sound insulation and high sound absorption for meeting the market's needs for noise protection in improving the acoustical environment.

Isolamin noise screens

Comply with Swedish standards and regulations, and are tested and comply with all EN standards for noise screens, such as for sound reduction, absorption, wind loads, own weight, snow loads and flying stones.

- The construction is completely tight, which provides a high sound reduction index for sound that passes the screen.
- Can be supplied with perforated surface, which provides excellent absorption properties.
- Require minimal maintenance.
- Comply with highest sound reduction 35 dB R_w in basic configuration.
- Comply with highest absorption class A for high-speed rail traffic.
- In perforated configuration, absorb sound reflections to the road's opposite side.

Isolamin supplies

- A complete, flexible system with simple installation and attachment.
- A complete system with few parts.
- Noise screens are adapted to the environment in which they will be installed.
- Noise screens with maximum intervals between posts, which reduces foundation work and overall costs.
- A solution with tested and proven long service life with minimal maintenance in outdoor environments.
- For planning, specification and installation, please refer to the Isolamin manual for noise and privacy screens.



Environments with hygiene requirements

Isolamin wall system for clean rooms and the food industry.

Advanced production methods in electronics, pharmaceuticals, biotechnology, chemistry and the food industry, and at slaughterhouses and labs, demand very high degrees of cleanliness, with so-called clean rooms. These clean rooms require movable wall and ceiling solutions for rapid modifications and changes according to the needs of production.

The Isolamin wall system for clean rooms is a flexible construction, with the wall and ceiling system supplied pre-adapted to clean room layouts and requirements, in other words, customized. Entire walls or individual panels are easy to install and remove.



- *Strong construction*
- *Stands on its own – self-bearing*
- *Complete systems for flush connection to prefabricated corners and T-elements.*
- *Smooth transitions to doors and windows.*
- *Wiring and reinforcements (when necessary) are inside the panels for the wall and ceiling system.*
- *Matching profiles in different colors and surface materials.*
- *High sound reduction.*
- *Can be supplied with fire safety classification Ei30 – Ei60.*
- *The system is tight and can be disassembled.*

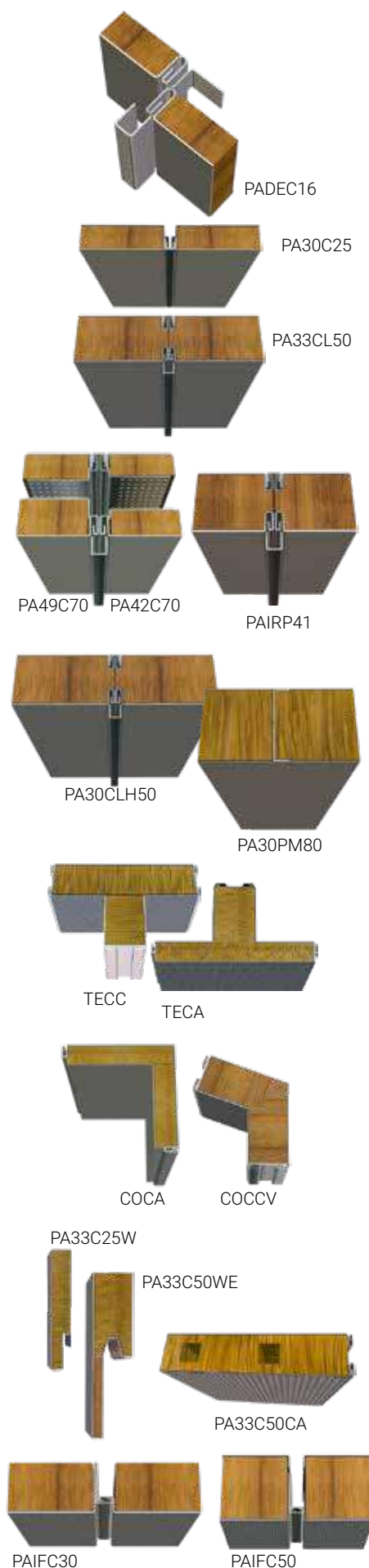
For detailed product information, please refer to our clean room brochure and the section in the product binder on clean rooms and hygienic walls.

Panels

Standard panel length: 2 000–6 100 mm. Standard panel width: 1 180 mm.

The following products are also supplied in perforated configurations. Most have fire safety ratings corresponding to the non-perforated versions. All perforated versions comply with absorption class A.

Item number	Weight kg/m ²	Thickness mm	Fire safety class	Sound reduction dB Rw	Coefficient of thermal conductance W/m ² K	Core material
Decorative panels						
PADEC16	8,3	16	Non flammable	-	-	Glass wool
PADEC16P	6,7	16	Non flammable	-	-	Glass wool
Wall panels						
PA30C25	16,3	25	Non flammable	27	-	Min. wool
PA30CL50	19,1	50	EI20/EI120	32	0,91	Min. wool
PA30CL80	22,9	80	EI 60	33	0,54	Min. wool
PA30CL100	27,6	100	EI 60	32	0,44	Min. wool
PA31CL50	14,5	50	Non flammable	29	-	Min. wool
PA33CL50	20,8	50	EI 20/E 120	34	0,81	Min. wool
PA33CL80	26,1	80	EI 60	33	0,54	Min. wool
PA33CL100	27,6	100	EI 60	32	0,44	Min. wool
PA42C50	23,0	50	Non flammable	42	-	Min. wool
PAIRP41	25,5	100	Non flammable	41	-	Min. wool
PA49C70	32,0	70	Non flammable	49	-	Min. wool
PA30CLH50	12,0	50	-	-	0,66	EPS
PA30CLH100	13,0	100	-	-	0,36	EPS
PA30CLH150	14,0	150	-	-	0,25	EPS
PA33CLH50	13,4	50	-	-	0,63	EPS
PA33CLH100	14,4	100	-	-	0,34	EPS
PA33CLH150	15,4	150	-	-	0,23	EPS
PA30PM80	17,6	80	Non flammable	-	0,48	Min. wool
PA30PM100	19,3	100	Non flammable	-	0,40	Min. wool
PA30PM150	23,5	150	Non flammable	-	0,28	Min. wool
PA30PM175	40,0	175	Non flammable	-	0,29	Min. wool
PA30P150	36,8	150	Non flammable	-	0,24	Min. wool
PA30P25	14,7	25	Non flammable	-	1,44	Min. wool
PA33P25	16,7	25	Non flammable	-	1,67	Min. wool
PA30PU25	9,4	25	-	-	1,18	EPS
Corner panels L-corners and T-panels are also available in all thicknesses in 90-degree angles. L-corners are also available in angles over 90 degrees.						
Special panels The Isolamin product standard also includes cable panels, wet room panels and panels with inlaid reinforcements.						
Ceiling panels						
PA33CL50	20,8	50	Non flammable	34	0,81	Min. wool
PA33CL80	24,2	80	Non flammable	33	0,54	Min. wool
PA33CL100	27,6	100	Non flammable	32	0,44	Min. wool
PAIFC30	6,1	30	B 0	45	-	Min. wool
PAIFC50	11,6	50	B 15	48	-	Min. wool



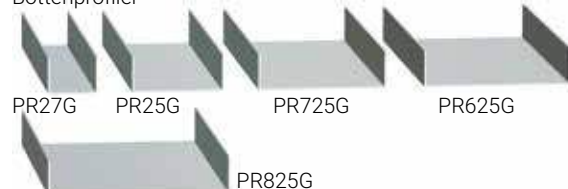
Profiles

For installation of walls and ceilings, only a few different profiles are used from Isolamin's standard assortment. Horizontal profiles are supplied in standard lengths of 2500 mm. Vertical profiles are supplied in lengths corresponding to panel lengths. The examples below show profiles necessary for installations with panel thicknesses of 25, 50, 80, 100 and 150 mm. For detailed information on Isolamin's product assortment, please refer to our product binder or visit our website at www.isolamin.com.

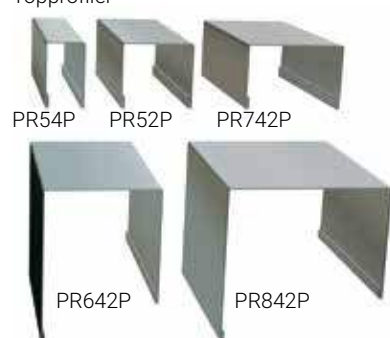
Skarvprofiler



Bottenprofiler



Topprofiler



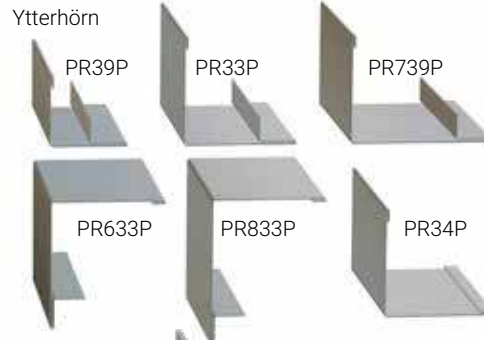
Innerhörn



Innerhörn



Ytterhörn



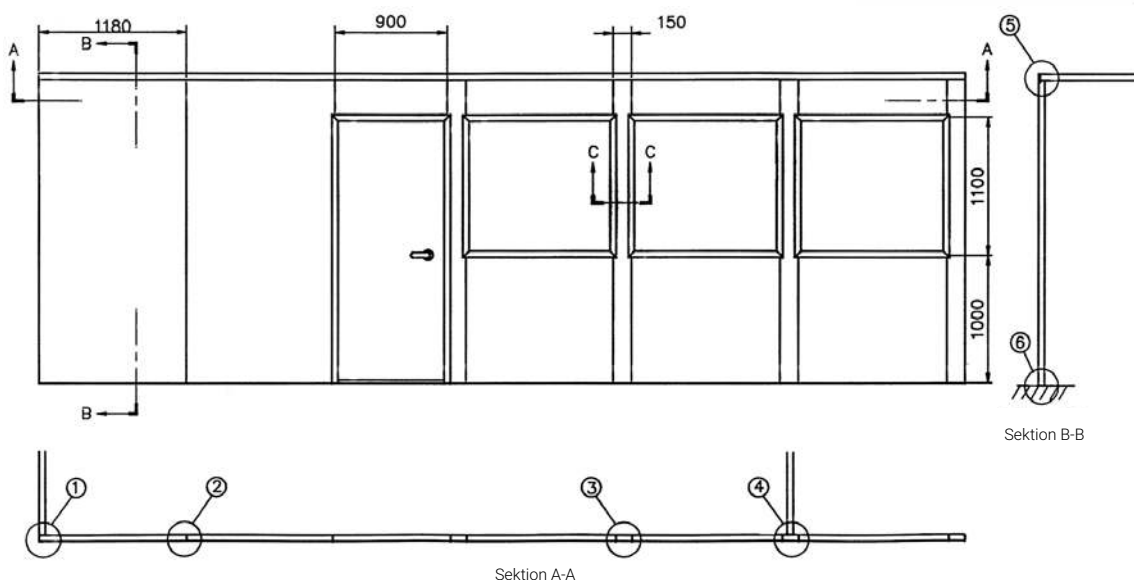
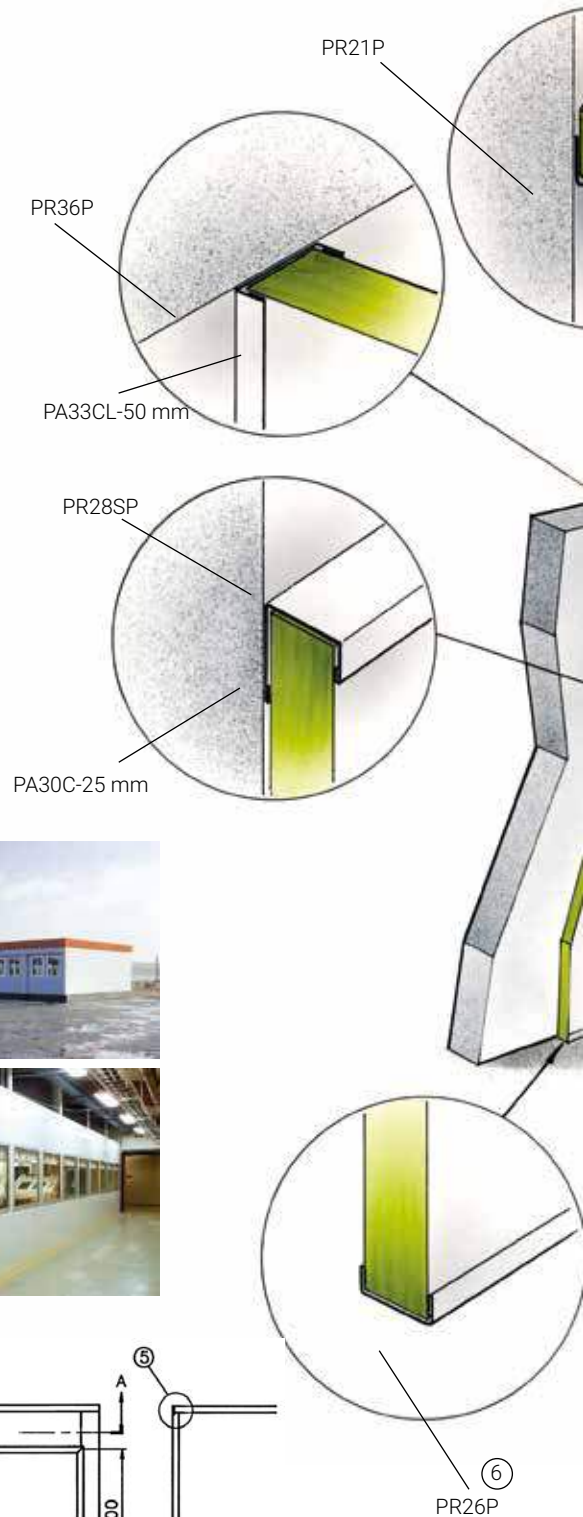
Takprofiler

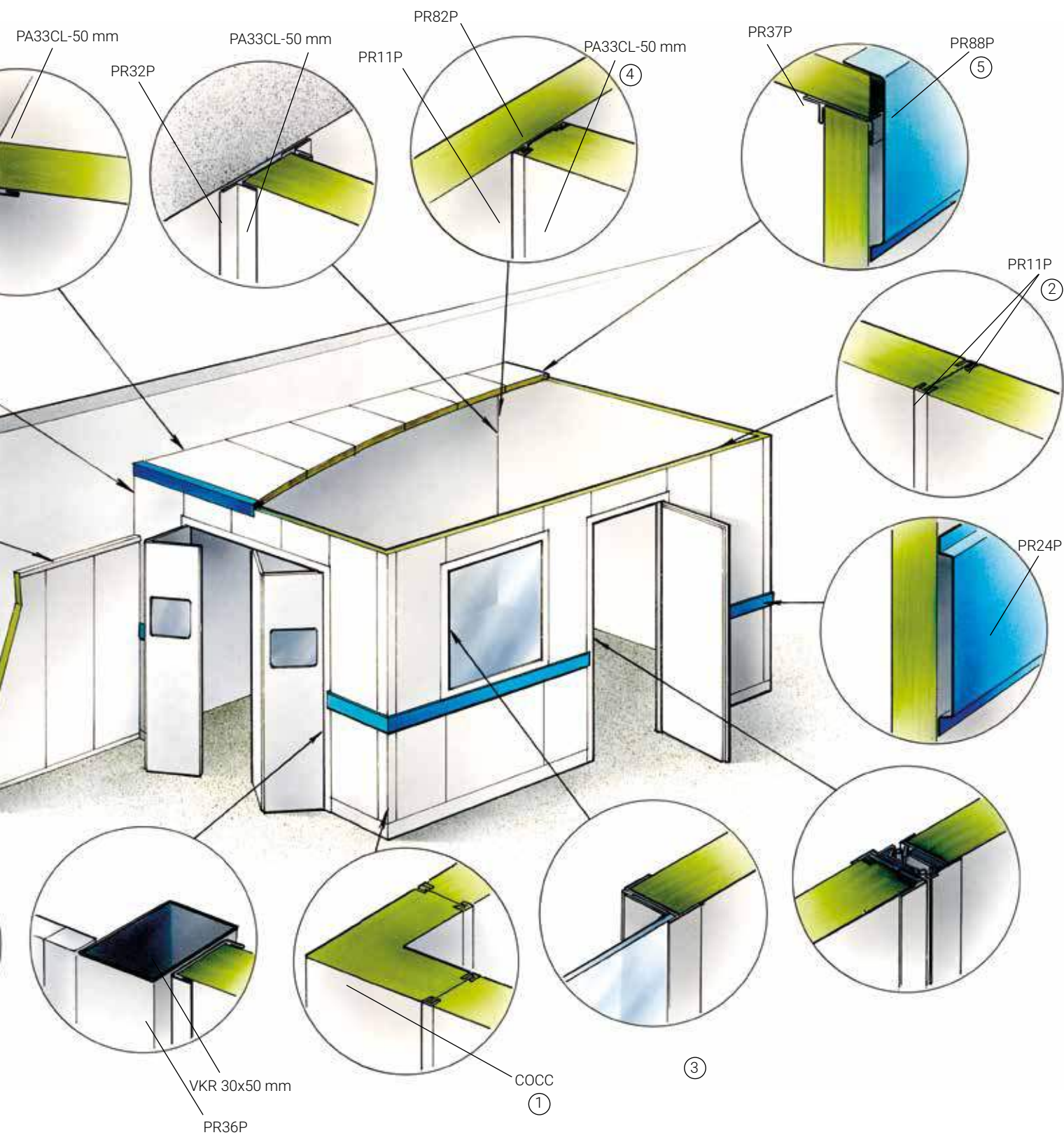


The system with many benefits

Isolamin system structure/Modular construction.

Isolamin often supplies complete modular solutions adapted to the needs of our customers. The products are adapted at project startup to an exact, optimal material specification, both from the customer and manufacturer's perspective.







Contact us

Enquiries, orders and deliveries.

Isolamin's flexible wall system for the building/industrial market is marketed and sold directly from the main office's sales department in Luleå and our sales office in southern Sweden. A portion of export sales are handled by sales agents and partners in Europe. Please visit our website at www.isolamin.com for detailed information.

Tender specification – order specification

So that we can provide a good tender, we prefer a rough tender specification, if possible with content in the form of a completed Isolamin specification form, which is shown on the following page. Lengths, widths and choices of color are not usually necessary at this stage. It is good if you can specify fire safety requirements, sound requirements or any other project requirements so that we can optimally tender products. The order specification is then customized as in the example on the following page.

Logistics

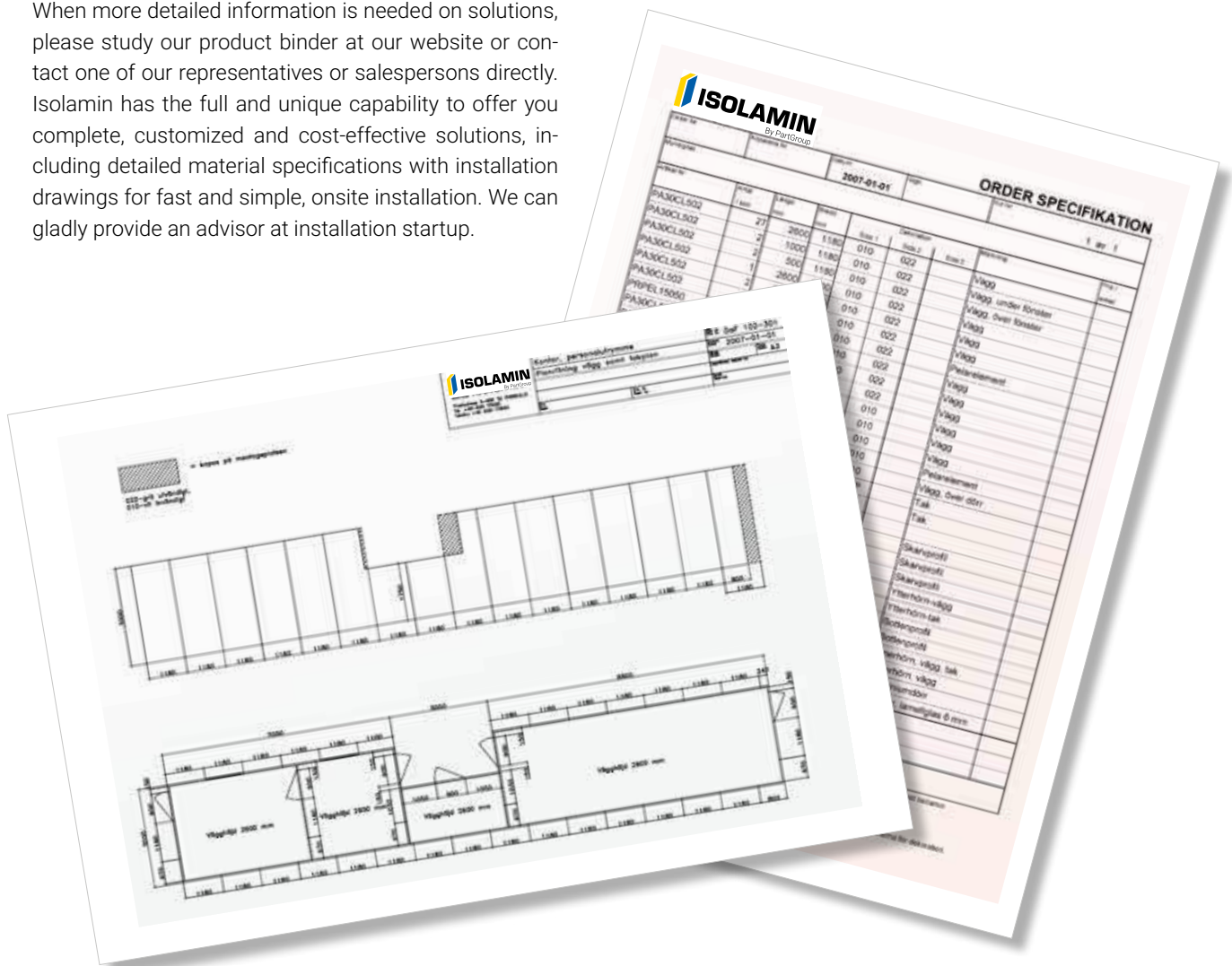
Isolamin supplies panels, ceilings, windows, doors and profiles prepackaged and labeled according to customer preferences. Panels, ceilings, windows and doors are shipped in wood packaging with corrugated cardboard and shrink-wrap. The profiles are packed separately in wooden crates. All packaging is labeled with order numbers, contents and markings that exactly match the positions specified in the order confirmation and installation drawing.

Other information

Detailed specifications, maintenance and service.

Working with Isolamin gives our customers access to know-how and experience from deliveries to a large number of construction projects in Europe.

When more detailed information is needed on solutions, please study our product binder at our website or contact one of our representatives or salespersons directly. Isolamin has the full and unique capability to offer you complete, customized and cost-effective solutions, including detailed material specifications with installation drawings for fast and simple, onsite installation. We can gladly provide an advisor at installation startup.



About Isolamin

At the beginning of the seventies, in cooperation with the Swedish shipbuilding industry, Isolamin introduced wall panels for use in marine interiors. This entailed a new approach to industrial production and installation of walls and ceilings in modular systems on ships. This new approach and its benefits were also well received during the eighties' offshore boom, and the products were adapted to meet the specific requirements of this sector. At the beginning of the nineties, Isolamin introduced the panel system to the Northern European construction industry, where the products' benefits soon created a new market.



- Fan rooms
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- Clean room walls
- Fire walls
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- Sound screens
- Elevator panels



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