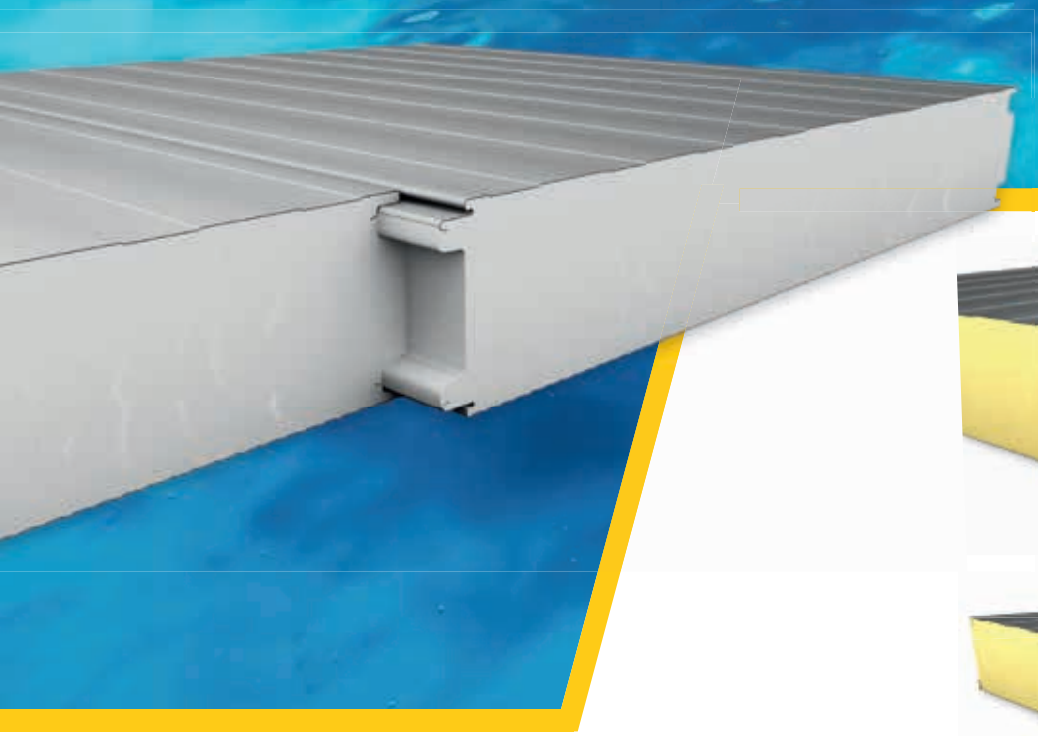
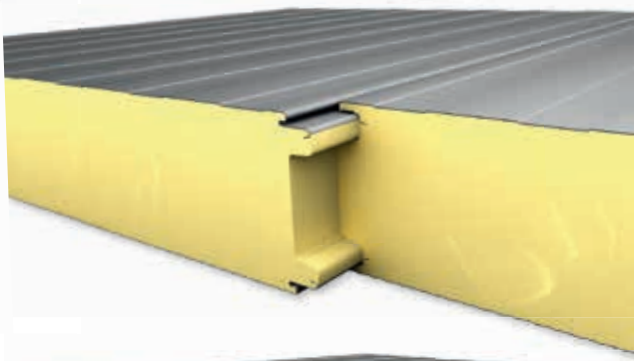
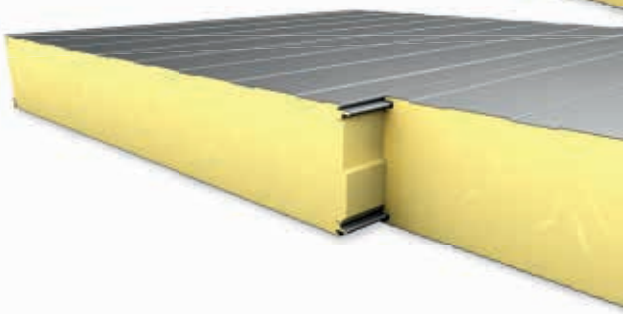
ems®
ISOLIERPANEELE

ems-joint in perfection

proven • unique • sealed







ems-isolier®
POLAR

// Outstanding joining characteristics

// ems-sealing tape and sealing joint with strong test results for quality and seal

Totally clear: Where our high-performance-IPN3 insulation core (PIR) ensures top insulating properties, it also needs the best joint, to contiguously maintain these insulating properties. For this purpose we have developed our ems-joint 2017 – reliably tested for its outstanding capacity by RWTH Aachen University.

For the standard joints of our ems-isolier® cold store panels, for ems we have developed the special ems-isolier® sealing tape, ELAST. This has now been carefully examined in the joint by the RWTH Aachen University. Outstanding test results in terms of seal. The joint performed just as convincingly in the test conducted by ift Rosenheim, with ems-isolier® ELAST for its performance in driving rain. Here as well an outstanding resistance was confirmed. The results emphasise the special joint fit accuracy and the excellent seal, which far exceeds the standard.

// This is new:

POWERED BY QuadCore™ TECHNOLOGY

// Greater reliability for vapour diffusion

Even without additional sealing components the standard joint for the ems-isolier® cold storage panel EM guarantees an excellent seal – and it does so in the lowest temperature ranges. Moreover, combined with ems-isolier® ELAST, the vapour diffusion resistance is also guaranteed. The optionally used sealing tape is particularly suited for use in the ultra-low, clean-room technology, or for CA or ULO storage. Walls remain vapour-resistant from the inside and structural damage is effectively countered.

// Minimised thermal bridge formation

The requirements imposed on cold store construction are constantly evolving. Consequently the panel experts from ems are not satisfied with the standards but rather are continuously improving their joint design through intensive research work. This perfection is particularly evident in the new ems-isolier® POLAR joint. Through the optimal fitting accuracy, even at high air pressure, a first-class seal is ensured and in this process thermal bridge formation is minimised. Moreover ems-isolier® POLAR offers a significantly higher joint quality, guaranteed outstanding air tightness and it effectively prevents cooling losses.

ems-isolier®
POLAR

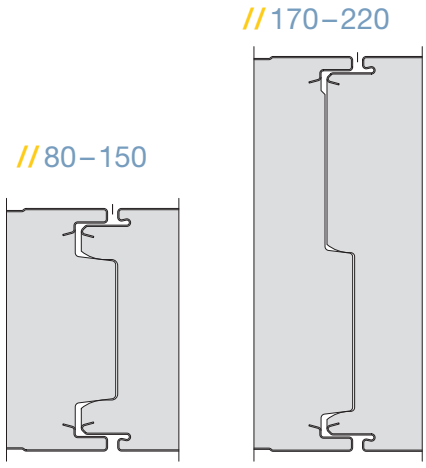
// ems-isolier® POLAR joint

Aimed at these special requirements in cold store production, we have perfected our joint design through years of intensive research work. Through the optimal fitting accuracy, even at high air pressure an above-average seal is achieved and thermal bridge formation is minimised.

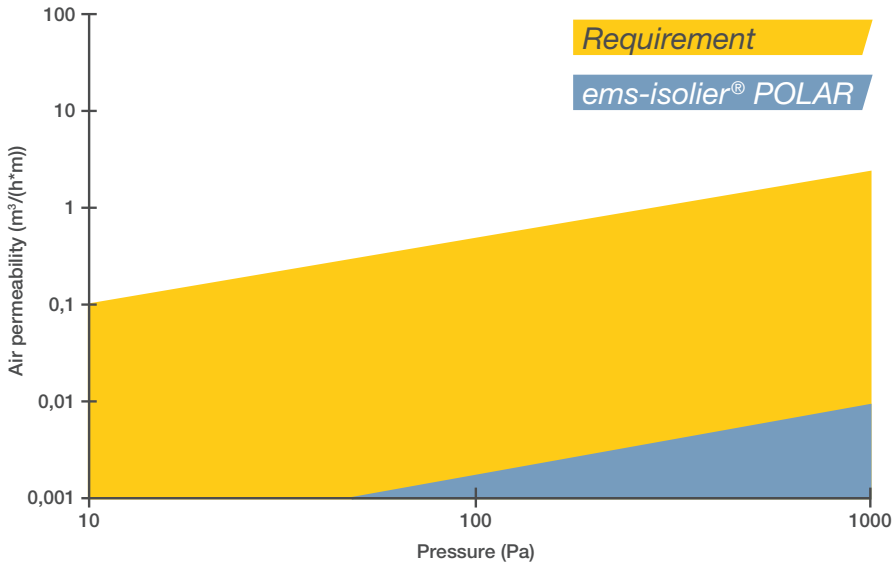
- Optimal joint geometry and fitting accuracy
- Greater joint stability
- Outstanding air seal and no cooling loss

With element thicknesses between 80 and 220 mm, our elements seal securely without requiring further measures:

Special joint design depending on element thickness

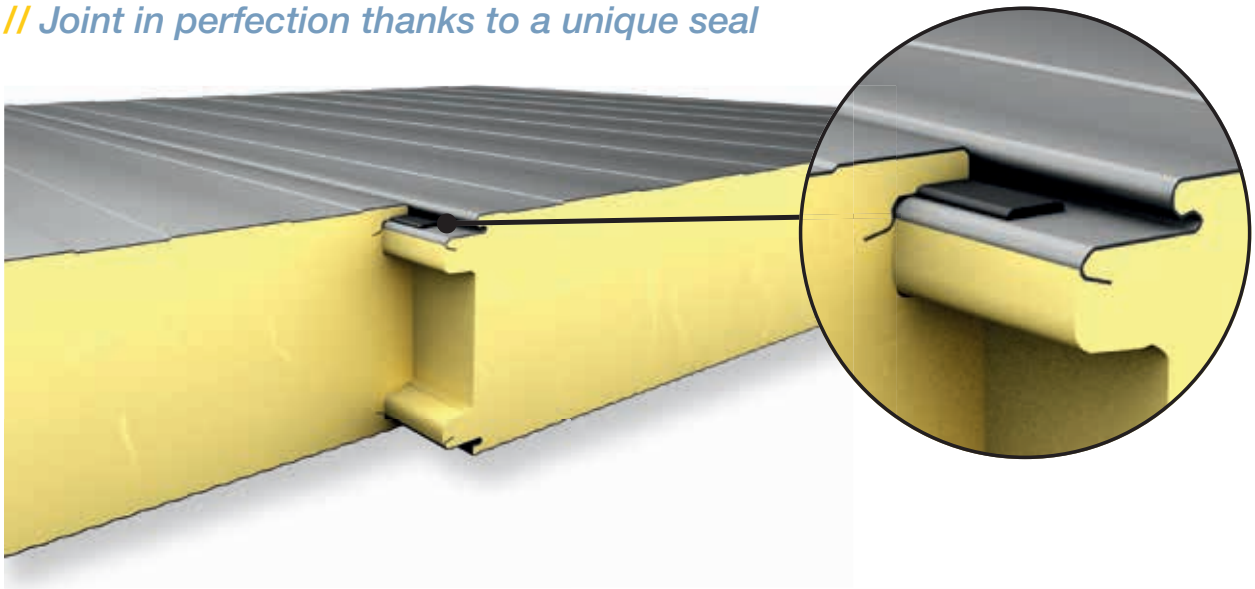


// Standard joints compared with the new POLAR joint



// Standard joint with sealing compound ems-isolier® ELAST

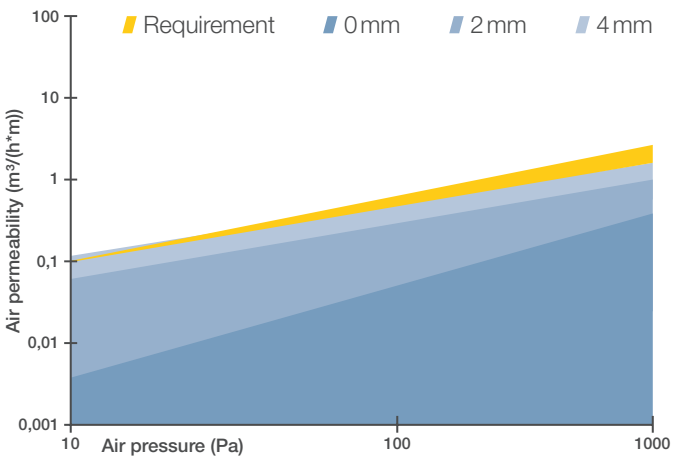
// Joint in perfection thanks to a unique seal



Whether chilling, deep freezing or fast-freezing compartment – the ems-isolier® cold store panel EM continuously satisfies the most rigorous requirements, and it has been the standard in cold store production for decades. You choose from ten different element thicknesses, from 40 to 220 mm. The joint geometry, especially developed for cold store production (from EM 60) forms a tight labyrinth seal and without additional sealing components, ensures the required tightness down to the lowest temperature ranges.

// Outstanding insulating quality: Standard joint with unique joint geometry and ems-isolier® ELAST

Outstanding seal for added insulating strength and efficiency – this is ensured for the standard joint of our ems-isolier® cold store panel EM through the clever combination of optimal joint geometry and the sealing tape ems-isolier® Elast. In the test conducted by RWTH Aachen University the standard joint, combined with ems-isolier® ELAST achieved outstanding results, and thus assures a better quality and even greater efficiency for your projects, for cold store and freezer room production; i.e. the seal is also ensured for considerable tolerances of up to 4 mm. The results are permanently sealed rooms – and the incomparable reliability for manufacturer and user.



EM 100 standard Elast air permeability

Tolerance	0 mm*	2 mm	4 mm
Joint permeability coefficient a [m³/(h • m • (daPa)]	0.036	0.069	0.108
Joint seal class	L2	L2	L3
Air permeability at 50 Pa [m³/(m² • h)]	0.091	0.166	0.272

SEM 100 standard Elast joint seal and classification
** Joint dimension: 0 mm = standard joint width: 5 mm*

ems-isolier®
POLAR

// ift - verification of seal in driving rain

More is not possible – ems-isolier® panels with unique joint geometry and ems-isolier® ELAST at a joint length of six metres and three joints simultaneously as wall in accordance with EN 12865:2001-03 evaluated on the newest ift large test bench.

Result: Self-supporting double skin metal faced insulating panels – Factory made products – Specifications in accordance with EN 14509:2013-10

Point A.1 **1** Water permeability – Resistance to driving rain at pulsing pressure

Limit value of the water permeability at method A
Class B

Result: No detectable water ingress (penetration of the sandwich element) up to and including **750 Pa** (comparable with wind strength 12 = 660 Pa). If necessary drainage of the penetrated water must be ensured.

The detailed test report 16-003461-PR01 and/or the certificate are available at:
http://www.ems-bau.com/downloads/

//Contact

Additional information is available at:

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