



# JI WALL PIR

Insulated panels (PIR core)

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## Index

Description	2
Weight and thermal performance	2
Materials	3
A1. External weather sheet	3
A2. Internal liner sheet (Liner profile)	3
A3. Insulation core	3
Confidex® Guarantee by Tata Steel	4
Performance	5
Certifications, Quality And Durability	5
Construction details for wall applications	6
Span Tables	8
Internal Walls	9

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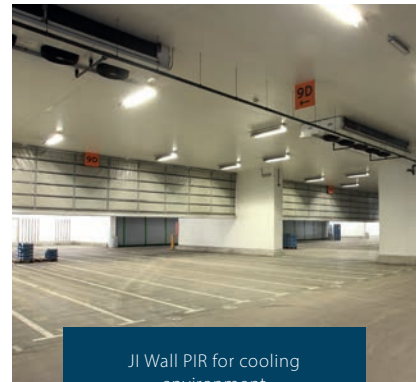




# JI WALL PIR

## Insulated panels (PIR core)

The JI Wall PIR insulated panel is a multi-functional panel to be used from external wall to internal applications such as compartmentalizing and ceilings. Due to its innovative joint for core thicknesses until 220 mm, it is the ideal panel for cold store, freeze rooms, but also agricultural buildings such as poultry and others.



The Joris Ide group, with more than 3 decades of experience, processing 419.000 tonnes of steel per year and have 16 production sites in over 8 countries. With the help of more than 1230 employees Joris Ide is your dedicated partner.

## Description

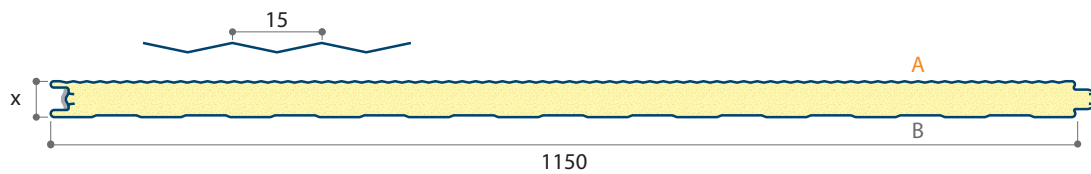
The JI Wall PIR insulated panel is a multifunctional panel to be used from external wall to internal applications such as compartmentalizing and ceilings. Due to its innovative joint for core thicknesses until 220 mm, it is the ideal panel for cold store, freezer rooms, but also agricultural buildings such as poultry and others.

## Applications

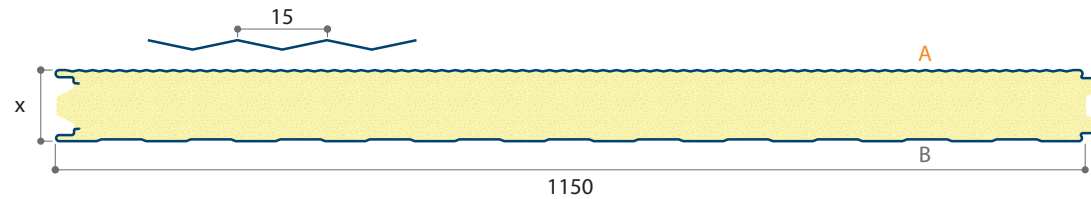
- Exterior walls and internal partitioning
- Cold store and freezer rooms
- Internal floor, walls and ceilings
- Food storage and processing plant
- Hygienic rooms

## Product drawing

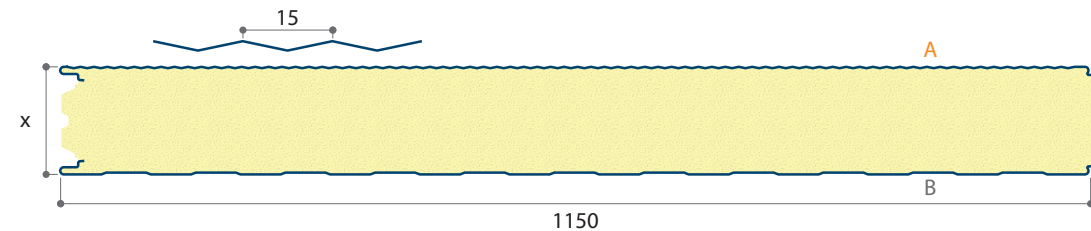
40 - 60 mm



80 - 100 mm



120 - 220 mm



## Profiling

Microrib

Liner

Smooth (for internal applications only)



## Weight and thermal performance

Core Thickness (mm)	40	60	80	100	120	150	170	200	220
U-value (W/m <sup>2</sup> K)	0,60	0,39	0,27	0,21	0,18	0,15	0,13	0,11	0,10
Weight (kg/m <sup>2</sup> )	9,79	10,55	11,31	12,07	12,83	13,97	14,73	15,87	16,63
Rw (dB)	24 (-2;-4)	24 (-1;-4)	25 (-2;-4)	26 (-3;-5)	26 (-2;-4)	27 (-2;-5)	28 (-3;-6)	28 (-2;-5)	28 (-2;-5)

Calculated in accordance to European product standard EN 14509:2013.

## Materials

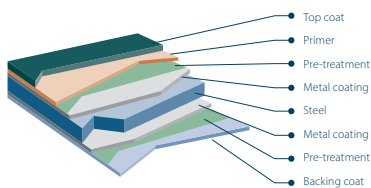
### A1. External weather sheet

Joris Ide offers one of the widest ranges in coatings and colors which can be defined per project and building requirements. Please consult our colorflow for detailed information.



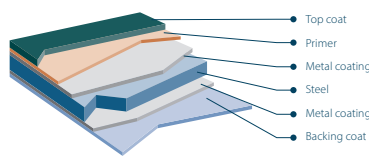
#### HPS 200 Ultra® 200 μ

200 microns + Scintilla® embossing



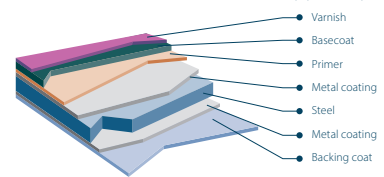
#### Ultra 60

25 microns primer + 30 microns top coat



#### Ultra 75

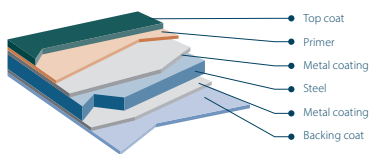
70 - 75μ (primer + top coat)



#### Essential

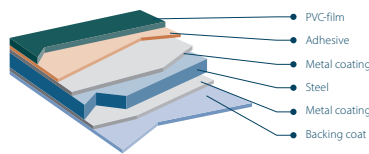
25 μ

5 microns primer + 20 microns top coat



#### Foodsafe

150 μ



### A2. Internal liner sheet (Liner profile)

Internal conditions of a building can vary; Joris Ide can offer a wide range to suit heavy-duty environments such as humidity and ammoniac. Please consult our colorflow for detailed information.

- 15 μ Polyester RAL 9002 (standard)
- 25 μ Polyester
- Colorfarm 35μ
- PVC Foodsafe 150 μ PVC
- HPS 200 μ.

### A3. Insulation core

Jl Wall PIR insulated panels are made with a high thermal performance and environmental sustainable PIR foam with zero ozone depletion and a low global warming potential.

## Confidex® Guarantee by Tata Steel

For over 20 years the Confidex® Guarantee from Tata Steel has remained best in class. Confidex® is the product performance guarantee for Colorcoat HPS200 Ultra®, when used in an external conventional building envelope application namely roof and wall cladding using single skin, built-up or composite panel construction in industrial and commercial buildings. Confidex® offers the longest and most comprehensive guarantee for pre-finished steel in Europe.

### Key features include;

- Extended guarantee cover for up to 40 years on Colorcoat HPS200 Ultra®.
- No requirement for annual inspections or maintenance to validate the guarantee.
- Covers cut edges produced under factory controlled conditions for the entire guarantee period.
- Backed by years of worldwide product testing and real world experience.
- Provides cover for roof pitches down to 1° and no distinction between different roof pitches above that.
- Offered directly to the building owner and provides a contractual relationship between Tata Steel and the building owner.
- Fully transferable should building ownership change.
- Helps reduce the level of risk for each part of the supply chain.
- Quick and simple online registration form.

With Confidex® registration



Without Confidex® registration



### Other warranties

Whilst Confidex® has always been restricted to the weathering performance of the external cladding, Tata Steel has recognised the growing emergence of demanding internal environment projects, such as energy from waste plants, and may offer a non-Confidex® warranty on a case by case basis for Colorcoat HPS200 Ultra® used internally.

Application specific warranties are also available for non-standard cladding applications; i.e residential roofs, flashings and sectional roller shutter doors.



Please have a look at our customer portal at [www.joriside.com](http://www.joriside.com) for more information about the guarantee.

### Regions covered by the Confidex® Guarantee



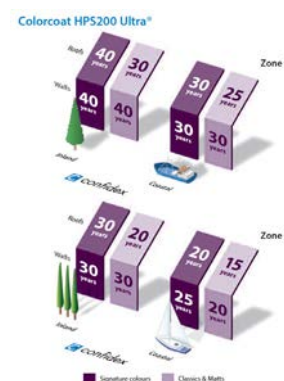
#### KEY

- Northern Europe – Zone 1
- Southern Europe – Zone 2
- For areas outside of Confidex® zones please contact Tata Steel for more information.

### Notes

- Figures under the Coastal heading are for buildings within 1 km of any coast.
- Full terms and conditions of the Confidex® Guarantee are on the online application form, available from [www.colorcoat-online.com/registration](http://www.colorcoat-online.com/registration)
- Confidex® must be registered within 3 months of the building completion date for the guarantee to be valid.
- The Confidex® Guarantee periods on the diagram above are applicable to Zone 1 and Zone 2. For more information visit [www.colorcoat-online.com/confidexmap](http://www.colorcoat-online.com/confidexmap)

*Colorcoat HPS200 Ultra and Confidex are trademarks of Tata Steel UK Limited.*



## Performance

## Environmental

The JI Wall PIR corresponds to the BRE Global Green Guide online generic specification Coated steel composite profiled panel with pentane blown PUR/PIR insulation and steel liner on steel support, structural steel frame with no internal finish (ref. 806600001) which achieves a summary rating of A+ within industrial buildings. The production facility is fully ISO 14001:2015 certified.

## Dimensions & tolerances

Minimum length : 2,50 m – Maximum length : 14 m (shorter lengths possible upon demand)

Dimensions	Tolerances
Length < 3000 mm	± 5 mm
Length > 3000 mm	± 10 mm
Width (mm)	± 2 mm
Thickness (mm)	± 2 mm

Product tolerances according to EN 14509:2013

## Certifications, Quality And Durability

The JI Wall PIR is manufactured according to the ISO 9001 and are assembled from high-quality raw materials which are selected by a detailed supply chain management and in-house laboratory controls. The product is produced to the highest quality standards such as EN 14509:2013. The JI Wall PIR carries the product conformity according to the European legislation and therefore all packs are CE-marked and carry the Declaration of Performance.



Assessed to ISO 9001:2015



Assessed to ISO 14001:2015



Assessed to OHSAS 18001:2007



Assessed to BES 6001



Assessed to ISO 37301:2021

## Accessories

Joris Ide can supply accessories such as flashings, ceiling systems and finishing profiles in PVC.

## Maintenance composite panels

Joris Ide advises to do an annual inspection of the panels and to carry out any remedial work identified during inspection.

The maintenance & cleaning frequency is dependant on the application environment and actual pollution conditions of the composite panel. Exterior used panels need to be cleaned once per year. For interior used panels, the cleaning is dependant on the actual pollution conditions. The cleaning of building walls should be made from up to down manually or by suitable cleaning facilities. Please note that any cleaner which includes corrosive material is forbidden to be used for the cleaning. Specific cleaning processes as below:

- Use plenty of clean water to wash the panel's surface;
- Use soft cloth with diluted detergent to wipe the panel's surface softly;
- Use clean water again to wash the stains off;
- Check the panel's surface and special cleaning with detergent is needed, if some parts are still not clean;
- Use clear water to wash the panels' surface till all stains have been washed out.

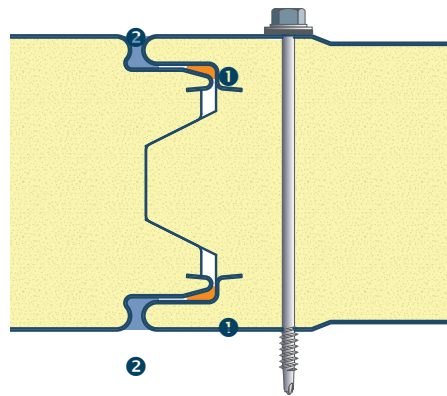
### Note:

Please don't clean if the panel's surface is hot (over 40 °C) because too fast volatility of the water will do harm to the coating. Please notice especially that suitable detergent should be chosen. Generally neutral detergent is OK. Please don't use strong alkaline detergent, such as potassium hydroxide, sodium hydroxide and also please don't use strong acid detergent, abrasive detergent and paint soluble detergent. We would suggest to clean a small part as an experiment before carrying out thorough cleaning of the whole project.

## Construction details for wall applications

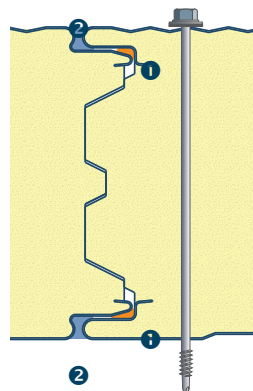
Side Lap Details (80, 100 mm) - Visible fixing, double joint

1. Damp proof mounting on site can be performed by placing a butyl cord on each side;
2. ... and siliconing the diabolo-shaped joint on each side.



Side Lap Details (120, 150, 170, 200, 220 mm) - Visible fixing, triple joint,

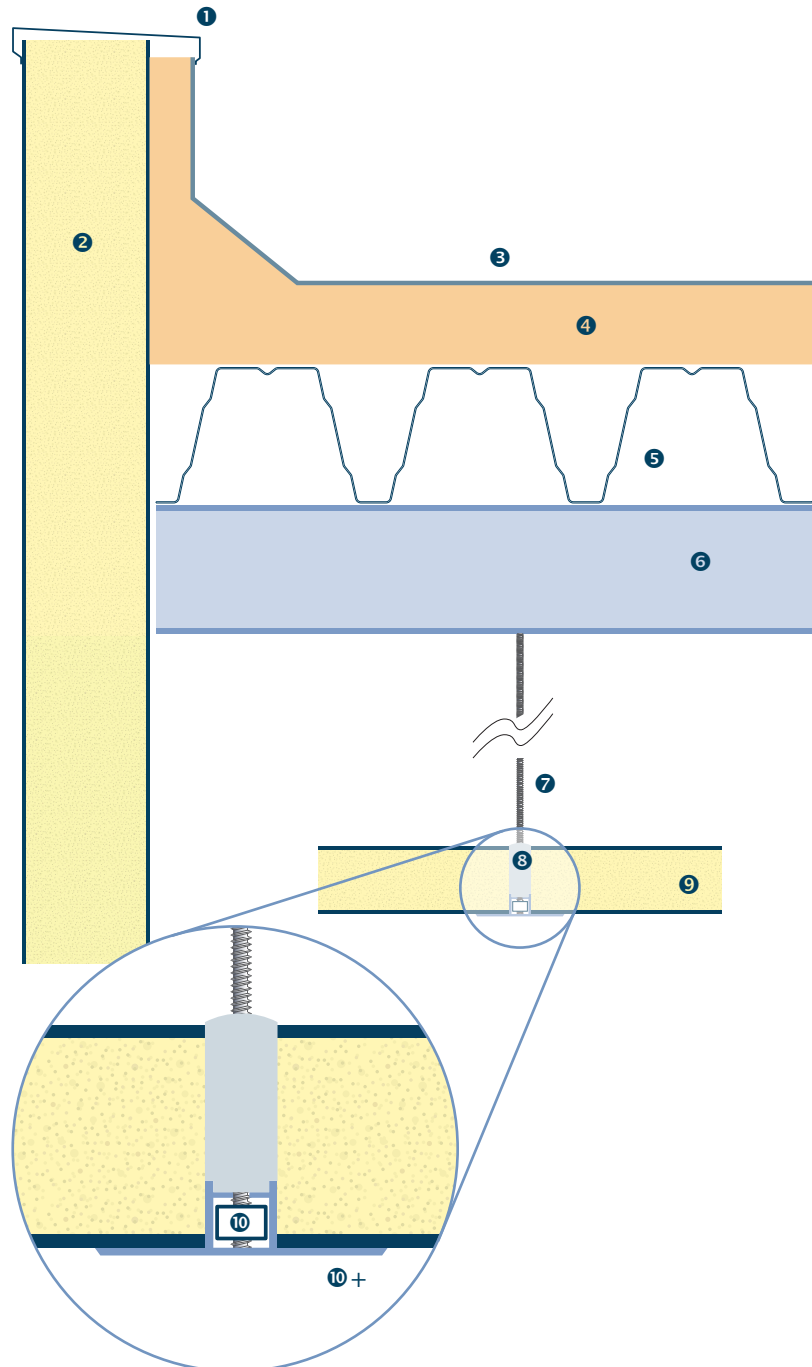
1. Damp proof mounting on site can be performed by placing a butyl cord on each side;
2. ... and siliconing the diabolo-shaped joint on each side.





## Construction details for ceiling applications

1. Coping flashing
2. JI Wall PIR
3. Site-applied waterproofing
4. Site-applied insulation
5. Joris Ide structural decking
6. Steel frame network
7. Hanger bar (M8 or M10)
8. Site-applied PIR foam
9. JI Wall PIR panel
10. PVC nut (M8 or M10)
- 10+. Aluminium T-profile (coated in white)



## Span Tables

### Safe Load table

- Span tables only valid for wall application.
- Values have been calculated using the method described in EN 14509:2013
- Deflection limit for short term loads: L/100
- The minimum required support width for end and intermediate supports is 50mm. Larger support widths are possible. For intermediate values, linear interpolation may be used.
- Calculation of fasteners is not included. Maximum span width depends on the type of fixing, the number and type of fasteners as well as the support material and thickness
- In the case of double or triple span conditions, this span/load table can only be used when all spans are equal or when the difference between the spans is less than 10%.
- These span tables only consider the pressure/suction wind load.

### Span Table Load type (kN/m<sup>2</sup>)

Thickness (mm)			Span (m)																			
			2,60	2,80	3,00	3,20	3,40	3,60	3,80	4,00	4,20	4,40	4,60	4,80	5,00	5,20	5,40	5,60	5,80	6,00	6,20	6,40
40	Pressure	Single	1,64	1,39	1,16	0,96	0,81	0,69	0,59	0,49	0,41	0,33	0,25									
		Double	1,50	1,25	1,06	0,90	0,76	0,67	0,59	0,50	0,47	0,43	0,39	0,35	0,32	0,28						
		Multiple	1,65	1,42	1,24	1,09	0,97	0,87	0,77	0,70	0,65	0,59	0,53	0,49	0,46	0,44	0,41	0,38	0,36	0,33	0,31	0,28
	Suction	Single	1,45	1,20	0,94	0,71	0,53	0,40	0,27													
		Double	0,88	0,68	0,53	0,44	0,37	0,30														
		Multiple	1,38	1,15	0,97	0,84	0,73	0,65	0,57	0,50	0,46	0,43	0,40	0,36	0,33	0,30	0,26					
60	Pressure	Single	2,45	2,11	1,84	1,62	1,44	1,27	1,15	1,03	0,94	0,87	0,79	0,71	0,65	0,58	0,52	0,47	0,42	0,37	0,33	0,28
		Double	2,45	2,06	1,72	1,46	1,25	1,08	0,93	0,81	0,71	0,64	0,57	0,50	0,47	0,44	0,41	0,38	0,34	0,31	0,28	
		Multiple	2,45	2,11	1,84	1,62	1,44	1,27	1,15	1,03	0,94	0,87	0,79	0,72	0,68	0,63	0,58	0,53	0,49	0,47	0,45	0,43
	Suction	Single	2,17	1,87	1,63	1,43	1,27	1,14	1,01	0,93	0,84	0,76	0,66	0,56	0,47	0,39	0,31					
		Double	1,73	1,31	1,00	0,79	0,64	0,51	0,44	0,38	0,31											
		Multiple	2,17	1,82	1,51	1,28	1,11	0,97	0,85	0,74	0,68	0,61	0,55	0,49	0,46	0,44	0,41	0,38	0,35	0,32	0,29	0,26
80	Pressure	Single	3,20	2,75	2,41	2,12	1,88	1,68	1,50	1,36	1,23	1,13	1,03	0,95	0,88	0,81	0,74	0,70	0,66	0,62	0,58	0,54
		Double	3,20	2,75	2,41	2,10	1,81	1,55	1,35	1,17	1,02	0,90	0,79	0,71	0,65	0,58	0,52	0,48	0,45	0,42	0,39	0,36
		Multiple	3,20	2,75	2,41	2,12	1,88	1,68	1,50	1,36	1,23	1,13	1,03	0,95	0,88	0,81	0,74	0,70	0,66	0,61	0,57	0,53
	Suction	Single	2,84	2,45	2,14	1,88	1,67	1,49	1,34	1,21	1,10	0,99	0,92	0,85	0,77	0,72	0,67	0,63	0,59	0,54	0,50	0,45
		Double	2,84	2,29	1,73	1,35	1,07	0,86	0,70	0,58	0,48	0,41	0,35	0,29								
		Multiple	2,84	2,45	2,12	1,78	1,53	1,31	1,14	0,99	0,89	0,79	0,71	0,65	0,59	0,53	0,49	0,46	0,44	0,41	0,38	0,36
100	Pressure	Single	3,69	3,38	2,95	2,60	2,29	2,05	1,84	1,66	1,50	1,38	1,26	1,16	1,07	0,98	0,92	0,86	0,80	0,74	0,70	0,67
		Double	3,69	3,38	2,95	2,60	2,29	2,05	1,80	1,58	1,38	1,21	1,06	0,94	0,84	0,74	0,68	0,62	0,56	0,50	0,47	0,44
		Multiple	3,69	3,38	2,95	2,60	2,29	2,05	1,84	1,66	1,50	1,38	1,26	1,16	1,07	0,98	0,92	0,86	0,79	0,74	0,70	0,66
	Suction	Single	3,48	3,00	2,62	2,30	2,04	1,82	1,63	1,47	1,34	1,22	1,12	1,02	0,95	0,88	0,82	0,75	0,71	0,67	0,63	0,59
		Double	3,48	3,00	2,62	2,14	1,67	1,33	1,07	0,87	0,71	0,60	0,49	0,43	0,37	0,31						
		Multiple	3,48	3,00	2,62	2,30	1,99	1,70	1,46	1,27	1,12	0,99	0,89	0,79	0,72	0,66	0,60	0,54	0,49	0,47	0,44	0,42
120	Pressure	Single	4,04	3,75	3,36	2,96	2,63	2,34	2,10	1,90	1,72	1,57	1,44	1,32	1,22	1,13	1,04	0,97	0,91	0,85	0,80	0,74
		Double	4,04	3,75	3,36	2,96	2,63	2,34	2,10	1,88	1,64	1,42	1,23	1,08	0,95	0,85	0,75	0,69	0,62	0,56	0,50	0,47
		Multiple	4,04	3,75	3,36	2,96	2,63	2,34	2,10	1,90	1,72	1,57	1,44	1,32	1,22	1,13	1,04	0,97	0,90	0,84	0,78	0,73
	Suction	Single	3,97	3,41	2,98	2,62	2,32	2,07	1,86	1,68	1,52	1,39	1,27	1,17	1,08	0,99	0,93	0,87	0,80	0,74	0,71	0,67
		Double	3,97	3,41	2,98	2,62	2,14	1,67	1,31	1,04	0,84	0,68	0,55	0,46	0,38	0,31						
		Multiple	3,97	3,41	2,98	2,62	2,23	1,88	1,59	1,36	1,18	1,03	0,92	0,81	0,72	0,66	0,60	0,54	0,49	0,46	0,43	0,41
150	Pressure	Single	4,47	4,15	3,83	3,42	3,02	2,69	2,42	2,19	1,98	1,80	1,65	1,51	1,40	1,29	1,20	1,12	1,04	0,97	0,92	0,86
		Double	4,47	4,15	3,83	3,42	3,02	2,69	2,42	2,19	1,98	1,73	1,48	1,27	1,11	0,97	0,86	0,75	0,68	0,61	0,54	0,42
		Multiple	4,47	4,15	3,83	3,42	3,02	2,69	2,42	2,19	1,98	1,80	1,65	1,51	1,38	1,25	1,15	1,04	0,96	0,89	0,82	0,75
	Suction	Single	4,54	3,92	3,41	3,00	2,66	2,38	2,14	1,93	1,74	1,59	1,45	1,34	1,23	1,15	1,06	0,98	0,92	0,87	0,81	0,75
		Double	4,54	3,92	3,41	3,00	2,66	2,19	1,69	1,30	1,00	0,78	0,61	0,47	0,37	0,27						
		Multiple	4,54	3,92	3,41	3,00	2,48	2,00	1,66	1,39	1,18	1,00	0,87	0,75	0,67	0,59	0,51	0,47	0,43	0,39	0,36	0,32
170	Pressure	Single	4,73	4,40	4,10	3,82	3,42	3,05	2,74	2,48	2,24	2,05	1,88	1,72	1,59	1,47	1,37	1,27	1,19	1,11	1,03	0,97
		Double	4,73	4,40	4,10	3,82	3,42	3,05	2,74	2,48	2,24	2,05	1,86	1,65	1,43	1,24	1,10	0,96	0,86	0,76	0,69	0,62
		Multiple	4,73	4,40	4,10	3,82	3,42	3,05	2,74	2,48	2,24	2,05	1,88	1,72	1,59	1,47	1,35	1,24	1,14	1,04	0,96	0,89
	Suction	Single		4,44	3,88	3,42	3,02	2,69	2,42	2,19	1,98	1,80	1,65	1,51	1,40	1,29	1,20	1,12	1,04	0,97	0,92	0,86
		Double		4,44	3,88	3,42	3,02	2,69	2,38	1,91	1,50	1,18	0,94	0,74	0,60	0,47	0,38	0,29				
		Multiple		4,44	3,88	3,42	3,02	2,61	2,15	1,80	1,51	1,28	1,11	0,96	0,84	0,73	0,66	0,58	0,51	0,47	0,43	0,40
200	Pressure	Single		4,73	4,41	4,14	3,89	3,60	3,23	2,92	2,65	2,41	2,21	2,03	1,87	1,73	1,61	1,49	1,40	1,30	1,22	1,15
		Double		4,73	4,41	4,14	3,89	3,60	3,23	2,92	2,65	2,41	2,21	2,03	1,87	1,71	1,53	1,35	1,20	1,07	0,95	0,86
		Multiple		4,73	4,41	4,14	3,89	3,60	3,23	2,92	2,65	2,41	2,21	2,03	1,87	1,73	1,60	1,49	1,39	1,29	1,20	1,11
	Suction	Single			4,56	4,00	3,56	3,18	2,84	2,57	2,33	2,13	1,94	1,78	1,65	1,52	1,42	1,32	1,22	1,15	1,08	1,00
		Double			4,56	4,00	3,56	3,18	2,84	2,57	2,33	2,00	1,61	1,29	1,06	0,86	0,70	0,57	0,46	0,38	0,31	
		Multiple			4,56	4,00	3,56	3,18	2,84	2,53	2,14	1,81	1,55	1,34	1,16	1,01	0,90	0,79	0,71	0,64	0,57	0,50
220	Pressure	Single		4,87	4,55	4,25	4,00	3,78	3,54	3,21	2,92	2,65	2,43	2,23	2,06	1,91	1,76	1,65	1,53	1,43	1,34	1,25
		Double		4,87	4,55	4,25	4,00	3,78	3,54	3,21	2,92	2,65	2,43	2,23	2,06	1,91	1,76	1,62	1,47	1,30	1,16	1,04
		Multiple		4,87	4,55	4,25	4,00	3,78	3,54	3,21	2,92	2,65	2,43	2,23	2,06	1,91	1,76	1,65	1,53	1,43	1,34	1,25
	Suction	Single		4,87	4,55	4,25	3,91	3,48	3,13	2,83	2,57	2,34	2,14	1,97	1,81	1,68	1,55	1,45	1,35	1,25	1,18	1,11
		Double		4,87	4,55	4,25	3,91	3,48	3,13	2,83	2,57	2,34	2,10	1,77	1,44	1,18	0,97	0,80	0,67	0,55	0,46	0,38
		Multiple		4,87	4,55	4,25	3,91	3,48	3,13	2,83	2,57	2,23	1,91	1,64	1,42	1,24	1,09	0,96	0,85	0,75	0,69	0,62

for design loads/spans out of the presented range or for other cases that doesn't fit within the assumptions presented above, please contact the technical assistance department of Joris Ide


Steel grade: S280 GD, external sheet 0,60 mm, internal sheet 0,40 mm.

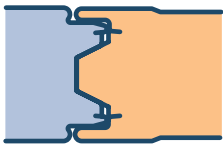
## Internal Walls


### Safe Load table


- Span tables only valid for internal walls application.
- Values have been calculated using the method described in EN 14509:2013
- Deflection limit:  $L/150$ .
- The minimum required support width for end and intermediate supports is 50mm. Larger support widths are possible.
- Calculation of fasteners is not included.
- In the case of double or triple span conditions, this span/load table can only be used when all spans are equal or when the difference between the spans is less than 10%.
- These span tables have been established under the assumptions of a pressure/suction load equal to  $0,50\text{kN/m}^2$ . This value takes into account the possible internal pressures inside a standard closed building.

### Span Table Load type ( $\text{kN/m}^2$ )

$\Delta T = 0^\circ\text{C}$ , The temperature on both sides is always the same.											
			Thickness (mm)								
			40	60	80	100	120	150	170	200	220
	Max span [mm]	Single	3800	5000	6100	7100	7600	8200	8700	9400	9900
		Double	4700	5700	6500	7200					
		Multiple	4500	5700							

$\Delta T = 30^\circ\text{C}$ , (e.g. $-5^\circ\text{C}$ inside and $25^\circ\text{C}$ outside)											
			Thickness (mm)								
			40	60	80	100	120	150	170	200	220
	Max span [mm]	Single	3500	4800	5900	7000	7600	8200	8700	9400	9900
		Double	4700	5700	6400	7100					
		Multiple	4500	5700	6500						

$\Delta T = 45^\circ\text{C}$ , (e.g. $-20^\circ\text{C}$ inside and $25^\circ\text{C}$ outside)											
			Thickness (mm)								
			40	60	80	100	120	150	170	200	220
	Max span [mm]	Single	2900	4200	5300	6400	7400	8200	8700	9400	9900
		Double	3800	4600	5100	5700	5800	5900	6400	7000	7500
		Multiple	4400	5700							

$\Delta T = 65^\circ\text{C}$ , (e.g. $-40^\circ\text{C}$ inside and $25^\circ\text{C}$ outside)											
			Thickness (mm)								
			40	60	80	100	120	150	170	200	220
	Max span [mm]	Single	2300	3300	4300	5300	6200	7500	8300	9400	9900
		Double	2300	2800	3200	3600	3700	3800	4200	4700	5000
		Multiple	3000	3400	3800	4100	3900	3800	4100	4500	4800

Jl Wall 1150 is a symmetrical panel. This means that the concepts inside/outside can be reverse without any additional consideration.



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With more than 30 years of experience, Joris Ide represents a guarantee of quality in the construction market. We provide solutions in all fields: acoustic, aesthetic, fire, thermal. Joris Ide, the essential partner for all your projects.



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