



Business Line
Sandwichpanelen
by Cladding Point

PREMIUM ALPHA-AR CORTEN

PIR hardfoam (concealed mounting)



Fire-resistant sandwich panels
Façade Applications

Technical Information

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DISCOVER AND EXPERIENCE

PREMIUM ALPHA-AR CORTEN is a concealed fire-resistant hard foam sandwich panel from our Business Line range with a standard working width of 1000mm.

The sandwich panel is available in 2 different (exterior) profiles and 3 (interior) profiles and can be applied both vertically and horizontally.

The exterior is made of beautiful Corten steel. With this product we contribute to the Circular Construction Economy. Discover the possibilities in Simplicity and Security.



For the climate



Responsible Business



Circular Construction Economy



Building together

At Cladding Point we take responsibility, that's why we work hard on things that really matter. By using responsible materials in our sandwich panels, we strive for a Circular Construction Economy.

And how we work with our suppliers? We ensure that we have a positive impact on everyone we do business with, based on fairness and equality.

We realize that it will not be easy, but waiting is not an option. Together we build a better future.

Working width

This product is available as standard in a working width of 1000mm and is available in 900mm on request.

Thermal efficiency

PREMIUM ALPHA-AR CORTEN has a fire-resistant hard foam core with PIR technology. This with a density of 40kg/m³, completely HCFC-free. The insulation values of the sandwich panels have been calculated in accordance with NEN-EN 1021 I-1, NTA 8800 and EN 14509 (including fasteners, transition resistors and construction quality correction factor).

Fire class

PREMIUM ALPHA-AR CORTEN complies with the European fire classification B-s1-d0 in accordance with EN 13501-1. This product is equipped with an FM approval hard foam core.

Fire resistance

For more information about the fire performance of the PREMIUM ALPHA-AR CORTEN sandwich panel; see conditions table on page 4.

Air permeability

The air permeability with regard to the seam connection in accordance with EN 12114.

Positive (+)		Negative (-)	
C	0,1136	C	0,2451
n	0,2931	n	0,1187

C = Air flow coefficient
n = Air flow exponent

A.d.h.v. the above assessment we can conclude that the contribution of the sandwich panels, i.e. the mutual seam connection, the total air permeability of a building is limited.

To meet the requirements, it is particularly important that extra attention is paid to finishing the connecting joints with other materials. This includes window and door frames, penetrations, other facade and day openings, floor and roof connections and the like.

The building decree only sets requirements at building level. This concerns the so-called qv10 value. I.e. the leakage loss through the complete building envelope in dm³/s per m² of usable area.

There are therefore no specific requirements for the facade panels (individual materials). This product meets the highest requirements in accordance with the Building Decree.

Water

Water vapor permeability is impermeable. Water permeability Class A-1200 Pa.

Statics

To correctly determine the static capabilities of this product, please contact our technology department. We recommend that you use pressure distribution plates during installation.

Environment

The PREMIUM ALPHA-AR CORTEN sandwich panels can be used in the Environmental Performance calculation. The data for this can be found in the National Environmental Database at www.milieudatabase.

We also have the BES 6001 (Excellent) certificate. Ask for the possibilities.

Management systems

The PREMIUM ALPHA-AR CORTEN sandwich panels are produced under the following management systems; EN ISO 9001,

EN ISO 45001 and EN ISO 14001.



Circular Construction Economy

Cladding Point believes it is important that the Circular Construction Economy is also measurable. That is why we have chosen to draw up an EPD for our products. An EPD (Environmental Product Declaration) gives the customer insight into how sustainable our sandwich panels are. In the Netherlands we also use the EPDs to calculate how much environmental damage a building causes compared to

her environment. This is done in the environmental performance for buildings calculation, also known as the MPG.

By selecting this sandwich panel you reduce the environmental damage of your building. What is special is that our products have an EPD with a category 1 card that complies with the regulations of the RVO. This is the highest achievable level. When you apply this product in a circular building you can achieve substantial tax benefits. Ask for the possibilities.



If you choose this sandwich panel in combination with our circular Cirpa® concept, you will significantly reduce environmental damage and achieve a better result in an MPG calculation. By demonstrating circularity, we achieve the highest achievable level in the field of sustainability! This unique data is included in a unique EPD sheet that belongs to this product as soon as you choose the Cirpa® concept. When you use this sandwich panel in a circular building, the building owner can directly obtain a substantial tax benefit through the MIA subsidy from the RVO. The Cirpa® concept does not apply to this product as standard. Ask about the options or visit www.cirpa.nl.

General certifications

PREMIUM ALPHA-AR CORTEN is manufactured from the highest quality materials and meets the strictest standards and quality controls. This product is CE and Dibt (zulassung) certified.

Lengths

Product Lengths	Possible up to 18.500mm
Length (standard)	2.000mm – 13.500mm
Length* (not standard)	400mm – 2.000mm 13.500mm – 18.500mm

* Additional costs and transport surcharges may apply. Ask about the options and conditions.

Tolerances

Façade Connection (2mm)	+2mm	-2mm
Length <3000mm	+5mm	-5mm
>3000mm	+10mm	-10mm
Working width	+2mm	-2mm
Thickness (d) ≤ 100mm	+2mm	-2mm
(d) > 100mm	+2%	-2%
Squareness (s)	<0,6%	

Tolerances are in accordance with EN 14509

Exterior

Product is supplied as blank Corten steel. The time required to reach the formation of the final

patina layer (oxidation layer) and color depends on the weather conditions. Parts that the weather conditions have little or no influence on must be treated artificially. The oxidation process can possibly be accelerated artificially. Ask about the options/conditions.

Standard interior coatings

The base coating is polyester 25µm and suitable for standard indoor environments. This interior coating made of polyester (PE) can be used on facades, roofs and ceilings, related parts and accessories.

The interior coating can also be carried out on request in a suitable coating for the food sector, agricultural sector, wet areas and an aggressive environment. On request, this product is also available in stainless steel 304/316.

Complete overview of coatings/colours

View all coatings and colour options in our colour palette.

Guarantee

Standard 10 year manufacturer's warranty on structural and thermal performance. Coating warranty with a possibility of up to 40 years (depending on the type of coating and project-specific information).

Project-specific guarantees are possible and upon request.

Deliveries

Our deliveries from the Business Line are unloaded free of charge and are largely transported by... road transport and are based on Lean and Green and Euro 6-7.

Assembly instructions

Our installation instructions can be downloaded from our website or available from Cladding Point Technical Services. The 3-D models are included in the Tekla library: www.tekla.com

Product name

The product name of our manufacturer ARpanel for this product is SU PIR and is stated as such on the relevant certificates. Ask about the conditions and possible additional costs for the above-mentioned certifications.

Fire-resistant Properties

Panel Type	Thick-ness [mm]	Fire Resistance [EN 13501-2]			Max. overspanning [mm.]* [EN 14509]		
		Façade	Partition Wall	Ceiling	Horizontal	Vertical	Ceiling
PREMIUM ALPHA-AR CORTEN EN-13501-1 Fire Class B-s1-d0	Heating Direction from inside to outside (i → o)						
	≥ 100	EI 15	EI 15	-	7.500	7.500	-
		EW 20	EW 20	-	7.500	7.500	-
		-	EI 20	-	4.000	4.000	-
		EW 30	EW 30	-	3.000	4.000	-
	≥ 120	EI 30	EI 30	-	-	-	-
		EW 30	EW 30	-	3.000	4.000	-
	≥ 120	EI 30	EI 30	-	-	4.000	-
		Heating direction from outside to inside (o → i)					
	≥ 100	EI 15ef	-	-	-	7.500	-
		EW 30ef	-	-	-	7.500	-
		EI 30ef	-	-	-	3.000	-
		EW 60ef	-	-	-	7.500	-
	≥ 120	EW 20	EW 20	-	-	7.500	-
		EI 20	EI 20	-	-	7.500	-
		EW 30	EW 30	-	-	4.000	-
EI 30		EI 30	-	-	4.000	-	
≥ 120	EW 60ef	-	-	-	7.500	-	

Always ask about the conditions regarding installation and/or fire reporting.
* Concerns max. fire-resistant spans. Static overvoltage's must be tested separately.

PREMIUM ALPHA-AR CORTEN

PIR hardfoam (concealed mounting)

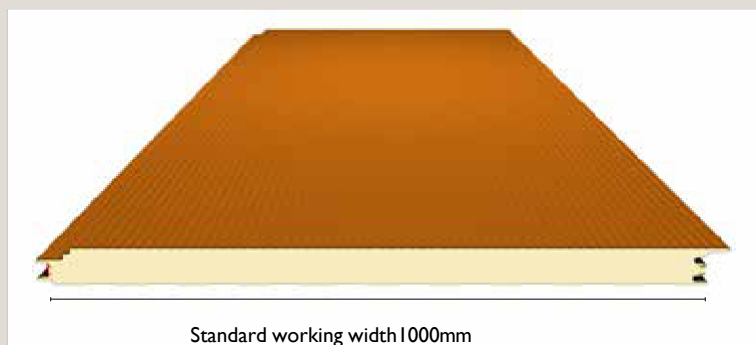
Technical Properties

PREMIUM ALPHA-AR CORTEN				
Thickness (mm)	60	80	100*	120*
Total panel weight (kg/m ²)				
Outer plate thickness 0.6 mm	11,00	11,70	12,50	13,20
Inner plate thickness 0.5 mm				
Noise reduction (R _w (C,C _{tr}) dB)	~25 (-2;-4)	~25 (-2;-4)	~25 (-2;-4)	~25 (-2;-4)
Rc-Value (m ² .K/W), NTA 8800	2,40	3,64	4,70	5,72

* Fire resistance applies to thickness 100 and 120 mm (see page 4).



Cross Section Panel



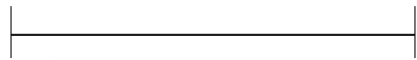
Connection (concealed mounting)



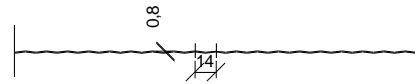
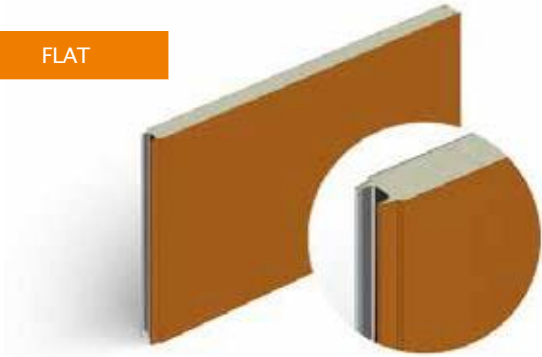
The Profiling

PREMIUM ALPHA-AR CORTEN

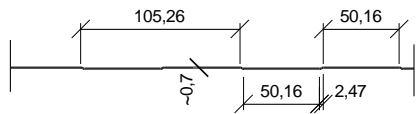
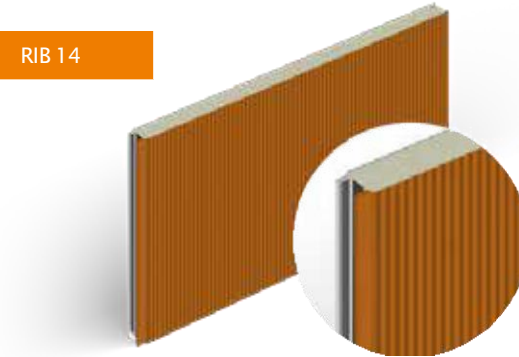
PIR hardfoam (concealed mounting)



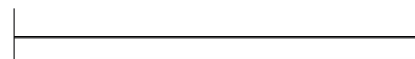
FLAT



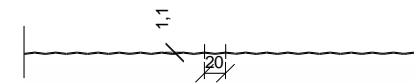
RIB 14



BOX



UNPROFILED



RIB 20



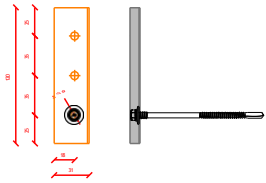
PROFILING	EXTERIOR	INTERIOR
Flat	Yes	No
Rib 14	Yes	No
Box	No	Yes
Unprofiled	No	Yes
Rib 20	No	Yes

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Initial Laying-up:

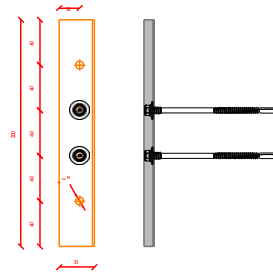
Minimum distance from the first screw to the panel edge $E_r = 25$ mm



Pressure distribution plate PREMIUM ALPHA-AR CORTEN
Dimensions: 120* 31* 9* 1,5
Item no.: 1008906

Interim Imposition:

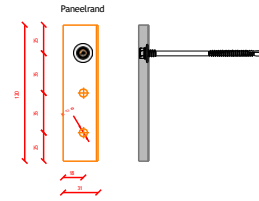
- Screws into the middle two holes of the pressure distribution plate
- If it is a cantilever, it is assessed as an intermediate support



Pressure distribution plate PREMIUM ALPHA-AR CORTEN
Dimensions: 200* 31* 9* 1,5
Item no.: 1009059

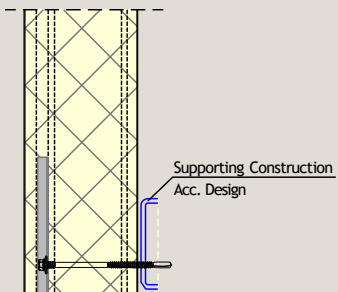
Final Impositions:

Minimum distance from the first screw to the panel edge $E_r = 25$ mm



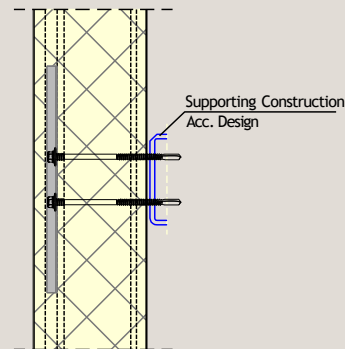
Pressure distribution plate PREMIUM ALPHA-AR CORTEN
Dimensions: 120* 31* 9* 1,5
Item no.: 1008906

Initial Laying-up:

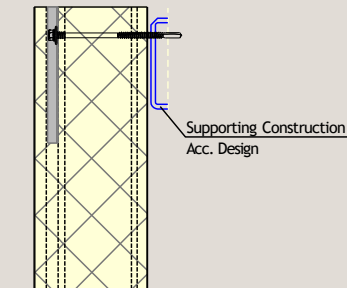


Interim Imposition:

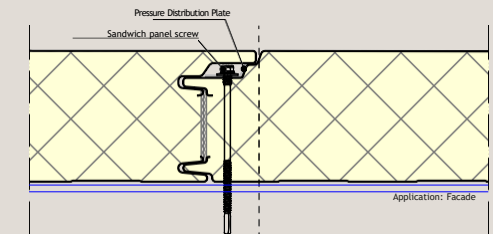
$E_r = 500$ mm (minimum)



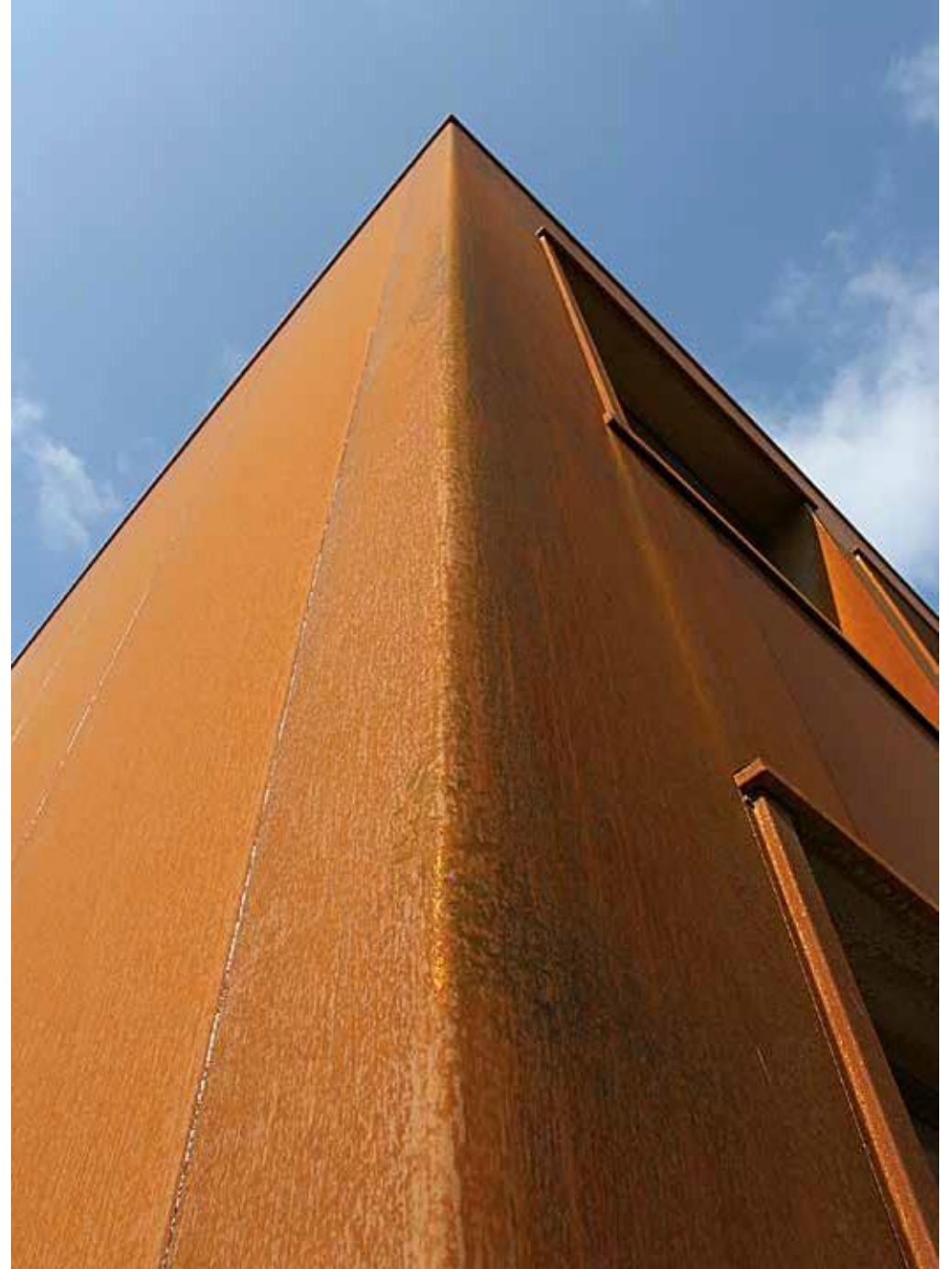
Final Impositions:



Mounting (concealed mounting)



Always ask about the conditions regarding installation and/or fire reporting.



Images show the (gradual) formation of the patina layer.



Do you want to know more?

Cladding Point is continuously improving and testing its products. New test results are added on a regular basis. If the desired fire resistance and any associated conditions that apply to your project are not included in the manual, please contact the technical department for the options and/or the latest status. In many cases we can offer you a suitable solution.

Business Line
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by Cladding Point

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Although Cladding Point has exercised the utmost care, Cladding Point cannot accept liability for any inaccuracies in this publication. Previously published documentation is hereby superseded. Names and descriptions may have changed. Projects shown in this documentation do not always have to be carried out with the specific products mentioned and are indicative.