

Podio balcony panels



For you to create



Fundermax

www.fundermax.com

**“Balconies are about freedom –
which includes freedom of design.”**

(Isabelle S., project manager)





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Fundermax

From furniture and facades to interior design, Fundermax works at the interface of ideas and materials. Today the company – which has a proud history spanning 130 years – stands as a global market leader in compact boards and producer of high quality materials using wood and laminates. Our sustained success has been based on prime quality, imaginative design, diversity and sustainable production. Our products are Made in Austria and exude a love of the natural resources of wood, creativity and inventiveness.

- modern production facilities in Austria and Norway
- approx. 1,400 employees
- annual turnover of €430 million
- part of Constantia Industries AG
- Austrian Excellence Award (2018)

1 Product information





“Satisfaction with the results is also a product of the material.”

(Hannes K., architect)

Material description

Max Compact Exterior panels are duromer high pressure laminates of type EDF according to EN 438-6; they offer effective protection from the weather thanks to double hardened acrylic polyurethane resin. The panels are produced in laminate presses, under high pressure and at high temperature.

Used as balcony flooring, the panels are high quality, CE-certified construction products with non-slip hexagonal surfaces. This makes them ideal for stairs and landings as well as balconies. The material is used for supporting structures in new buildings as well as outdoor restoration projects.

Formats

XL = 4100.0 x 1854.0 mm = 7.6 m ²
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X2 = 2050.0 x 1854.0 mm = 3.8 m ²
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NEW!

Advantage:

- easier handling thanks to lower weight

GR = 2800.0 x 1300.0 mm = 3.64 m ²

NEW!

Advantage:

- easy processing and adaptation at the construction site
- no sealing of edges required
- decorative underside
- minimal waste with standard balcony depth of 2500.0 mm
- ideal for balcony restoration projects

Format tolerances +10.0–0.0 mm (EN 438-6, 5.3)

Panel format is a production format. For accuracy of dimensions and angles, we recommend an all-sided blank. Depending on the method of trimming, net size is reduced by approx. 10.0 mm.

Core

The core is available in F-Quality, flame-retardant, in colour brown.

Thicknesses (depending on static requirement)

Thicknesses	Tolerances (EN 438-6, 5.3)
16.0 mm	±0.7 mm
18.0 mm	±0.7 mm
20.0 mm	±0.7 mm

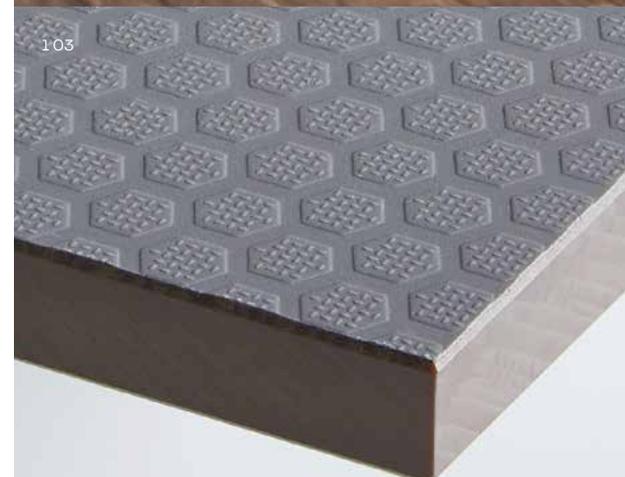
Observe local building regulations!
For horizontal use only!

Anti-slip classes

- R10 according to DIN 51130
- Group C according to DIN 51097

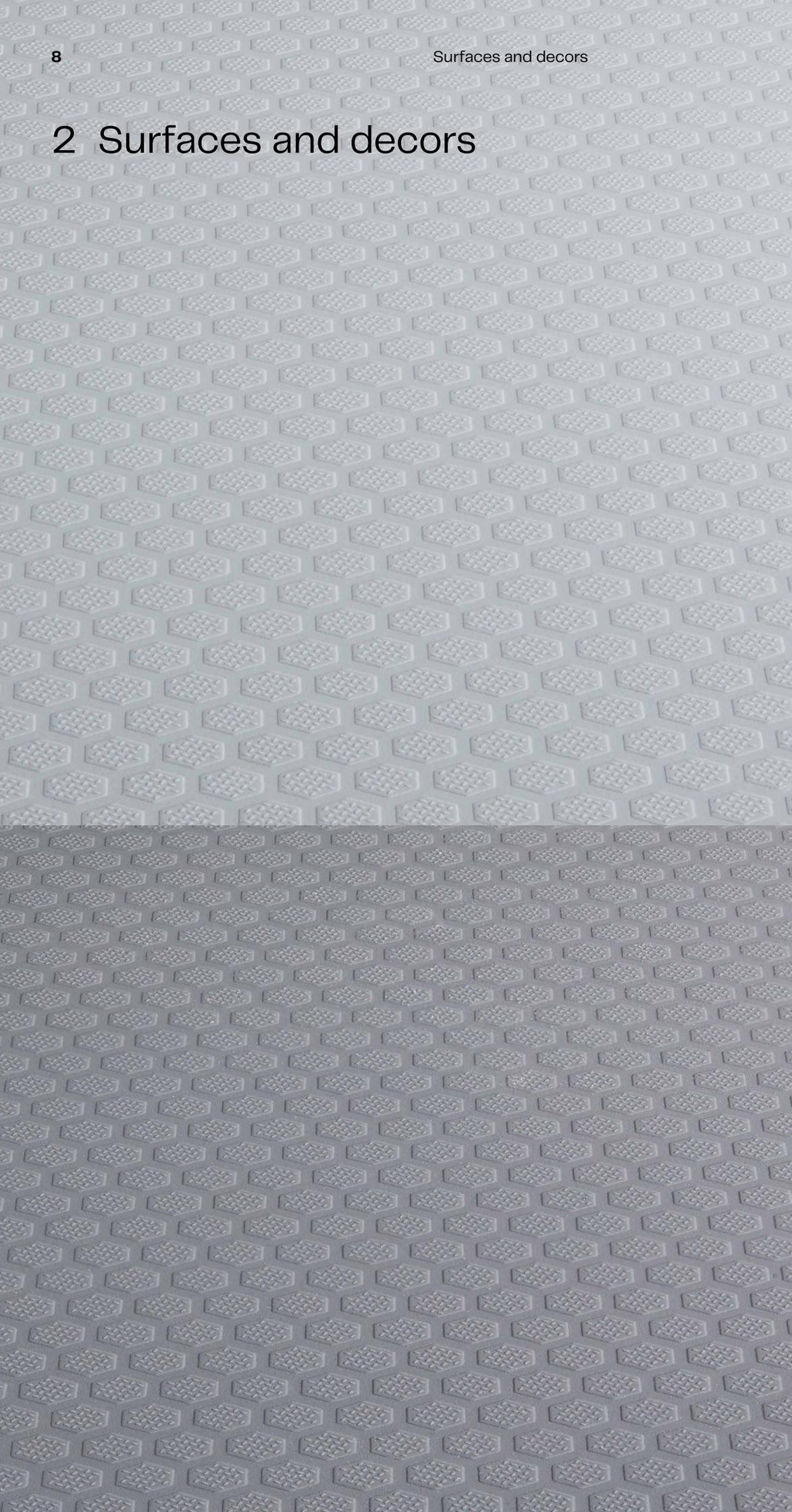
Approval: General design certification

Number Z-50.4-337
Z-50.4-337_10-09-2021.pdf (fundermax.at)



- 1 01** Wall connection, railings
- 1 02** 5171 NH Polar Oak with 8.0 mm joint
- 1 03** 0075 NH Dark Grey

2 Surfaces and decors



**“The differences you can see
and feel are what makes my
house special.”**

(Bettina F., businesswoman)



Surfaces

Outdoor areas especially require surfaces that not only meet high requirements in terms of safety and resistance, but are also aesthetically pleasing.

NH – Hexa (front side)

- deep studded structure
- texture with good grip to prevent slipping
- offers ideal protection of decors against weathering
- for additional decor choices, see the full product range

NT (rear side)

- decorative balcony underside

Decors

A taste of freedom, an expanded living space, a design feature and an indispensable part of modern architecture – the potential uses of a balcony are as individual as the personal tastes of those who enjoy them.

Bearing in mind the option of combining with other materials (facades, windows, balcony furniture, etc.), Fundermax offers two neutral yet trendy colour ranges.

The first, for looks inspired by nature, comprises warm tones with a feelgood vibe; the second consists of urban colours as an expression of contemporary lifestyle – the perfect accompaniment to purist decor schemes and urban modernity.





Product range

			Product	Max Compact Exterior Podio balcony panels							
			Formats (mm)	4100.0 x 1854.0		2050.0 x 1854.0		2800.0 x 1300.0		Reverse side decor	Decor direction
			Thicknesses (mm)	16.0	18.0/20.0	16.0	18.0/20.0	16.0	18.0/20.0		
			Surface	NH, reverse side NT							
			Quality/core colour	F-Quality, brown							
Decor type	Decor no.	Decor name	Nearest NCS code/wood type								
U	0066	Sand	S 1505-Y20R	●	○	●	○	●	○	X	N
U	0074	Pastel Grey	S 2500-N	●	○	●	○	●	○	X	N
U	0075	Dark Grey	S 5000-N	●	○	●	○	●	○	X	N
U	0144	Costa	S 3005-Y20R	●	○	●	○	●	○	X	N
M	0427	Skyline		●	○	●	○	●	○	X	L
H	5171	Polar Oak	Oak	●	○	●	○	●	○	X	L

For more design and decor options, please see the full Exterior product range.

Delivery: Reverse side (NT) top

All decors also available with reverse side (NT) decor 0890 Balcony white.

Delivery options

- = available in commercial quantities from stock
- = according to current delivery times

Decor types

- U = Colour
- M = Material
- H = Nature

Decor/decor direction

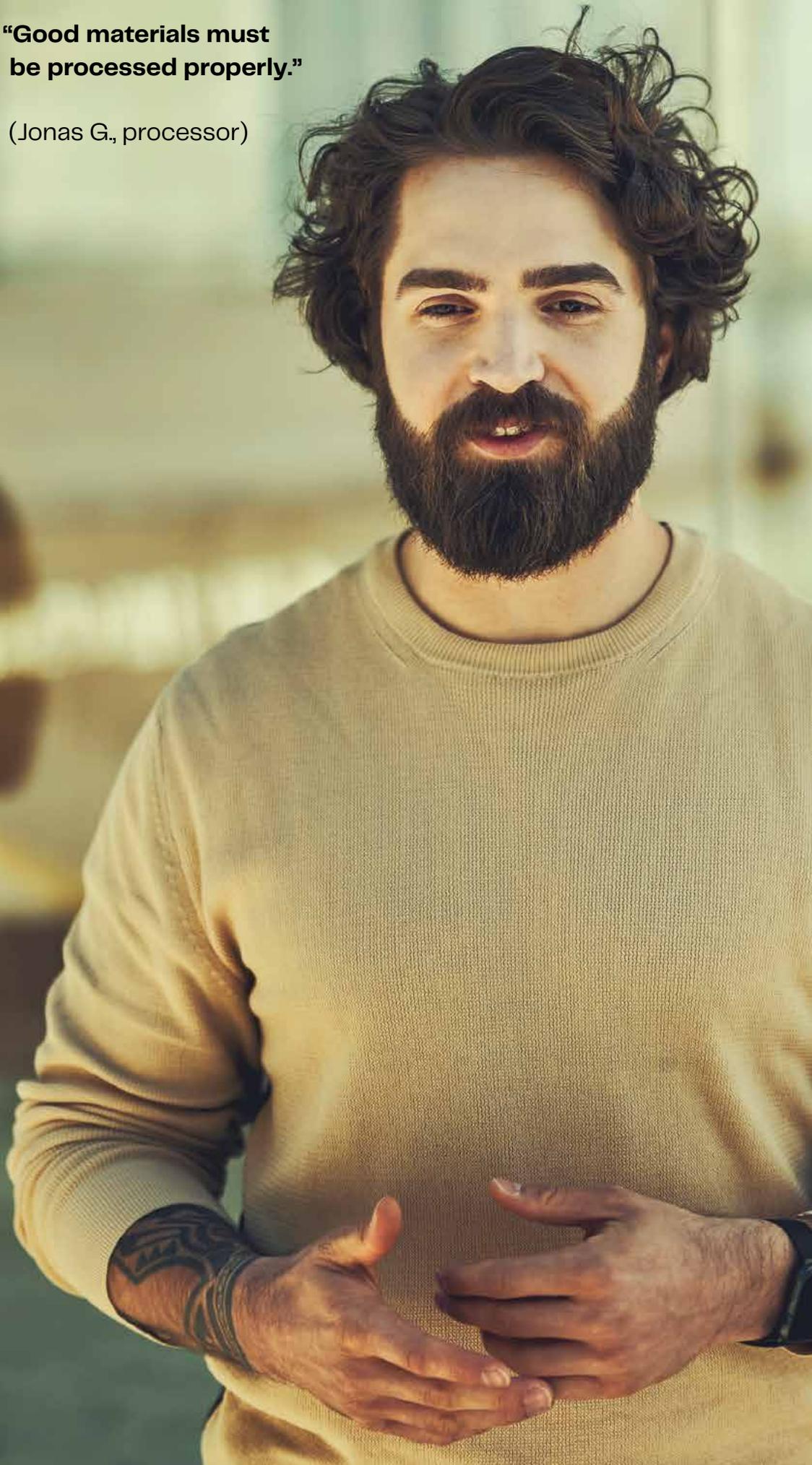
- X = Decor on both sides
- L = This decor is directional (length). Please consider this during optimisation and cutting.
- N = This decor is directionless. You can turn it during cutting.

3 Application and installation



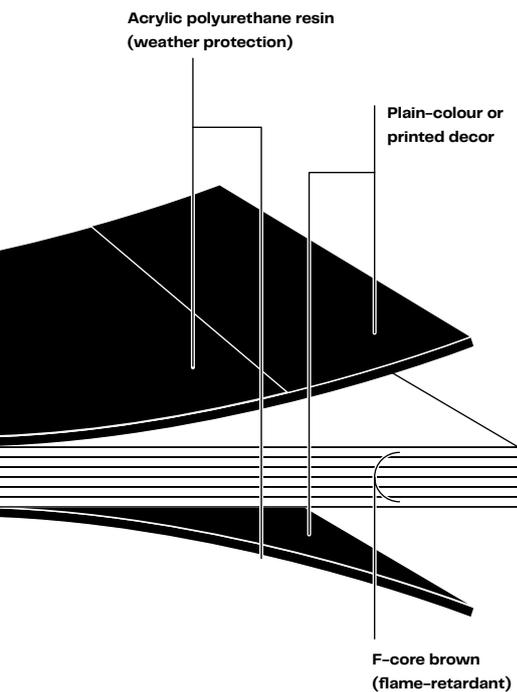
**“Good materials must
be processed properly.”**

(Jonas G., processor)



Fundamentals of handling

3 01



3 01 Structure of balcony panel

3 02 Vertical section: principle of ventilation and incline

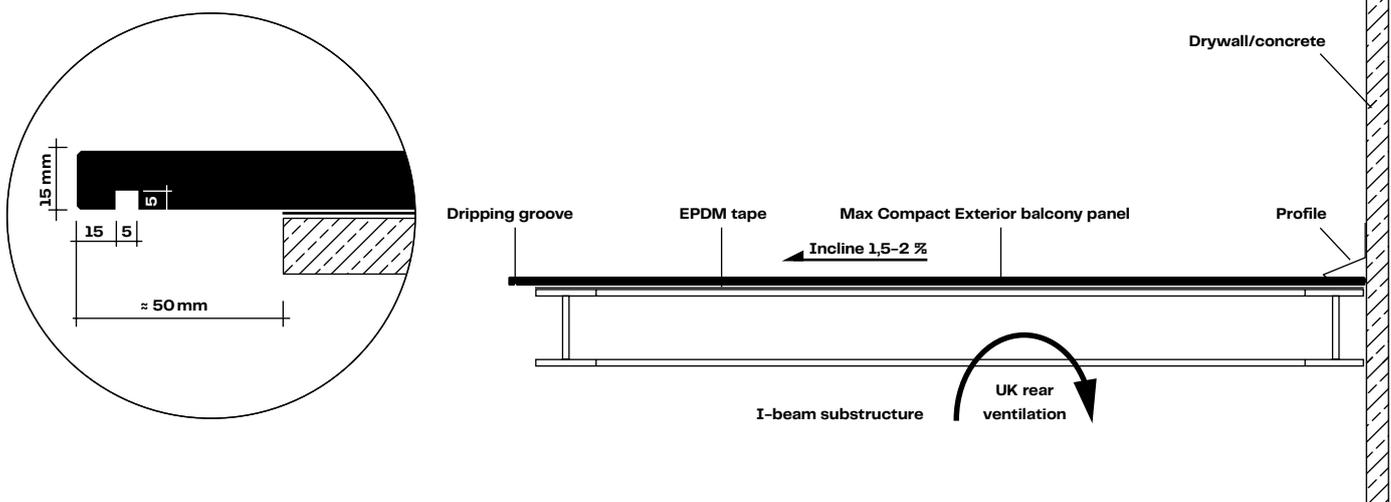
Podio balcony panels can be screwed or glued in various ways to suitable substructures, with an incline. The substrate and substructure must be sufficiently load-bearing. Ensure rear ventilation with a minimum distance of 25.0 mm from the substrate. Moisture-storing surfaces (grass, ballast, gravel, etc.) are unsuitable. Ensure sufficient drainage of the substrate.

Protect material from accumulating moisture; panels must be able to dry. Generally, balconies should be provided with an incline of $\geq 2\%$. Ensure sufficient expansion clearance. The joints between panels must be at least 8 mm. For substructures that run parallel to joints, the gaps between panels must be placed above a substructure, and may be held at the same height by suitable joints. Avoid elastic intermediate layers between the panel and the substructure, as well as between parts of the substructure, that allow a tolerance of more than ± 0.5 mm.

When installing panels on a wooden substructure with screws, form fixed and sliding points. Construct the wood substructure in line with national standards (wood moisture $15\% \pm 3$). Pay attention to structural or chemical wood preservation.

Ensure suitable rear ventilation so that the panels can be conditioned on both sides. Do not allow the panels to rest fully on the ground below. Protect the substructure against corrosion.

3 02



Guidelines for laying panels

Fixing distances

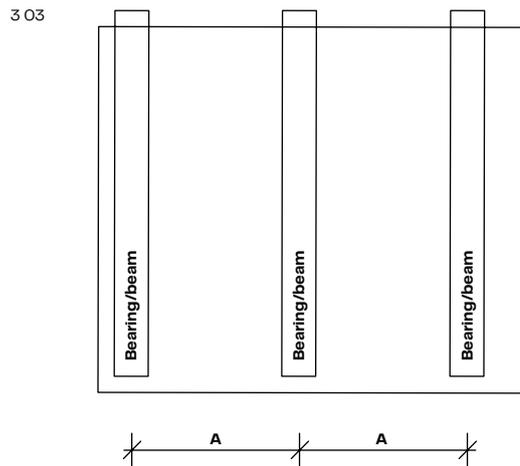
The substructure battens must have a width of ≥ 60.0 mm (≥ 80.0 mm in the joint area). For wood substructures in the joint area, the width must be ≥ 100.0 mm. Distance B should be \leq distance A (bearing/beam), and never greater than 600.0 mm.

Edge distances

For installation with screws, the edge distance can be 20.0–100.0 mm.

Panel joints and joint formation

The joints must be at least 8.0 mm wide so that changes in size can be realised without hindrance. Fill joints with a permanently elastic sealant, and place a permanently elastic rubber band in the groove.



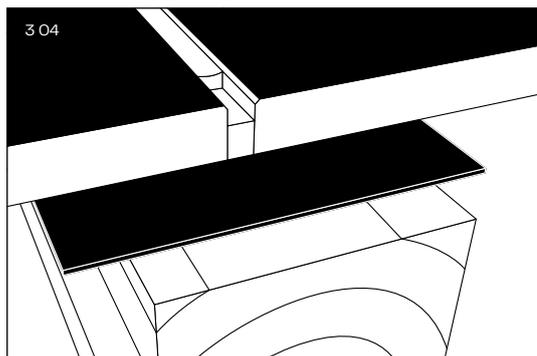
Traffic load kN/m^2

Max. allowable deflection of 1/300	Support spacing in mm		
	3.0	4.0	5.0
Panel thickness	Support spacing in mm		
A \leq 500.0			
16.0 mm	X	X	X
18.0 mm	X	X	X
20.0 mm	X	X	X
A \leq 600.0			
16.0 mm	X	X	-
18.0 mm	X	X	X
20.0 mm	X	X	X
A \leq 800.0			
20.0 mm	X	X	-

x = permissible

For applications requiring approval in Germany, observe the maximum support spacing in accordance with the general building inspectorate approval Z-50.4-377. For current permits, see www.fundermax.at.

Installation: Mechanically fixed, not visible



Fixed point

The fixed point allows for the equal distribution (halving) of swelling and shrinking movements. The drill hole diameter in the Max Compact Exterior panel must be approx. one flight depth lower than the screw diameter.

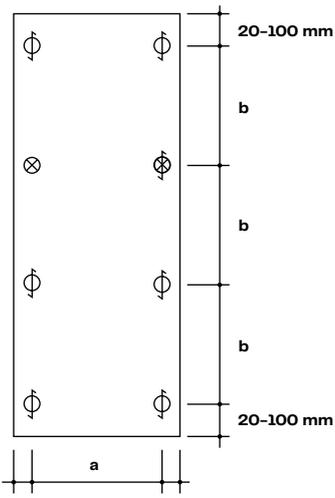
Sliding point

The drill diameter in the substructure must be bigger than that of the mounting material, depending on the required expansion clearance. The shaft diameter of the fastening device plus 2.0 mm per metre of cladding material from the fixed-point outwards. The fastening device must be arranged so that the panels can move. Do not fasten screws too tightly. Do not use countersunk screws. The centre of the hole in the substructure must match the centre of the hole in the panel. Use drilling aids (drilling equipment). The panels should be fastened from the middle outwards.

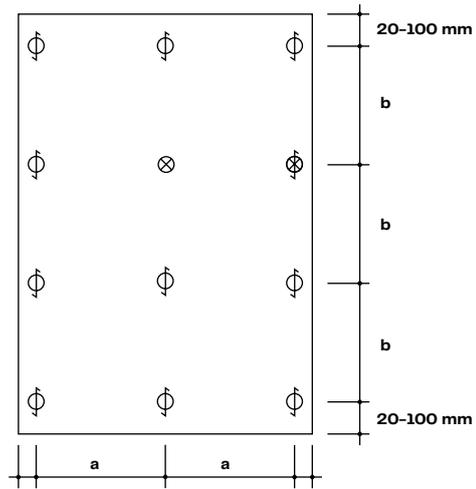
Note

In wood substructures, pay attention to structural or chemical wood preservation. Use EPDM tape with a minimum thickness of 1.2 mm. To keep the sealing joint free from cracks, we recommend using a permanently elastic rubber band.

3 05



3 06



- ⊗ Fixed point
- ⊖ Sliding point
- ⊕ Loose point

3 07



3 08

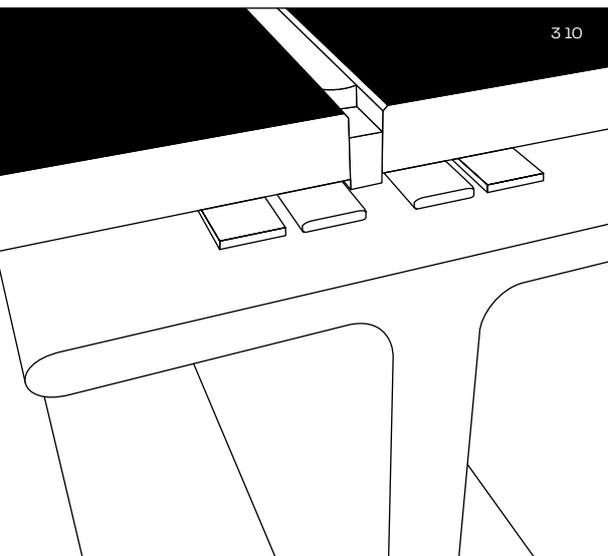


3 09



- 3 04 Balcony floor and wooden beam
- 3 05 Double span panel
- 3 06 Single span panel
- 3 07 Balcony panel, invisible fixed (screwed) on steel beam
- 3 08 Balcony panel, invisible fixed (screwed) on wooden beam
- 3 09 Balcony panel, invisible fixed (screwed) on moulded tube

Installation with gluing system



310

Gluing

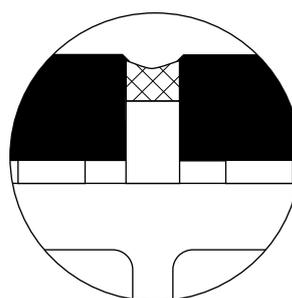
As an alternative to mechanical fastening, it is possible to use specially developed gluing systems from Propart or Innotec. This works on conventional metal substructures.

Note

Ensure the panel is not subjected to stress when gluing. Take account of the expansion and shrinkage behaviour of Max Compact Exterior panels. The construction supervision authority in Germany does not approve gluing! For the maximum panel size, refer to the approvals of the glue manufacturer; for laying guidelines, refer to the approvals for the relevant gluing system.

310 Balcony floor and steel beam (glued)

311 Balcony panel, invisible fixed (glued) on steel beam



311



Physical data and approvals

Properties	Testing method	Assessment	Standard value ¹⁾	Typical value ²⁾
Lightfastness and weather resistance (NT)				
Resistance to artificial weathering*	EN 438-2:2016, Section 29, 3000 h	Contrast: Gray scale Appearance: Degree	Contrast: ≥ 3 Appearance: ≥ 4	Contrast: 4–5 Appearance: 5
Resistance to UV rays*	EN 438-2:2016, Section 28	Contrast: Gray scale Appearance: Degree	Contrast: ≥ 3 Appearance: ≥ 4	Contrast: 4–5 Appearance: 5
Properties				
Mechanical properties				
Bulk density	DIN 52328 / EN ISO 1183	g/cm ³	≈ 1.35	1.44
Flexural strength	EN ISO 178	MPa	≈ 80	Crosswise: 105 Lengthwise: 170
Flexural modulus	EN ISO 178	MPa	$\approx 9,000$	Crosswise: 11,000 Lengthwise: 16,000
Tensile strength	EN ISO 527-2	MPa	–	Crosswise: 95 Lengthwise: 140
Resistance to impact with a large ball	EN 438-2:2016, Section 21	mm	≤ 10	5–6
Thermal properties				
Resistance to moisture	EN 438-2:2016, Section 15	%	Mass increase ≤ 8	2
Dimensional tolerance at high temperature	EN 438-2:2016, Section 17	%	Lengthwise: ≤ 0.30 Crosswise: ≤ 0.60	Lengthwise: 0.08 Crosswise: 0.16
Coefficient of thermal expansion	DIN 52328	1/K		18 x 10 ⁻⁶
Thermal conductivity		W/mK		0.3
Water vapor diffusion resistance				approx. 17,200 μ
Building material classes				
Europe building material class	EN 13501-1	MA39-VFA Vienna	Euroclass B-s2, d0 for 6–13 mm**	
Austria facade fire testing	ÖNORM B 3800-5	MA39-VFA Vienna	tested panel thicknesses 8–13 mm	
Fire resistance test balcony floor Podio Austria	EN 1365-2	MA39-VFA Vienna	REI60 for thickness 20mm	
Switzerland building material class	EN 13501-1	MA39-VFA Vienna	Euroclass B-s2, d0 for 6–13 mm ²⁾	
France building material class	NFP 92501	LNE	M1 for 2–10 mm	
Spain building material class	UNE 23727-90	LICOF	M1 for 6–10 mm	
Poland building material class	PN-B-02867:2013-06	Instytut Techniki Budowlanej	NRO for 6 – 10 mm mechanical visible/invisible fixing NRO for 8 – 10 mm invisible glued fixing	
Approvals				
Germany facade approval		Deutsches Institut für Bautechnik, Berlin	6, 8, 10 mm, Approval no. Z-10.3-712	
ETB guidelines for components that protect against falling, from 6/1985 balcony railings		TU Hanover	present (depending on building regulations and railing construction, 6, 8, 10, or 13 mm panel thickness)	
France Avis technique		CSTB	6, 8, 10, and 13 mm, timber and metal subframe, approval No. 36-87 2/16-1749 No. 36-106 2/2/14-1623_V1 No. 36-125 2/2/13-1565_V2 No. 36-125 2/2/21-1809_V1 No. 36-125 2/2/16-1716 No. 36-29 ATT-20/O13_V1 No. 26-29 ATT-20/O14_V1	
WinMark UK		Wintech	A10114	

A gloss degree tolerance of ± 5 GE applies for the surface NT, measured at 60°. The tolerances information sheet (version 2017-1-16) of the ÖFHF (www.oefhf.at) applies with regard to colour tolerance.

- * Decor AUTN: artificial weathering EN ISO 4892-2: 1500 h; assessed according to grey scale EN 20105-A02:2
- * Individual decor: artificial weathering EN ISO 4892-2: 3000 h; assessed according to grey scale EN 20105-A02:3
- ** Exception: Podio balcony panel, EUROCLASS B-s2, d0 (6.0-20.0 mm)

¹ According to EN 438-6

² Examples are shown: Fundermax only guarantees compliance with standard values
Further certificates and approvals: www.fundermax.at/downloads

Legal notices:

Please observe all valid building regulations. We accept no responsibility in this regard. Please check whether your construction project meets the requirements for the effective restriction of fire propagation (e.g. OIB-RL 2, DE sample management regulations for technical building regulations MVV TB etc.). This brochure is intended for professionals who are familiar with the relevant standards, technical regulations, legal requirements and guidelines relevant to building products.

While these guidelines have been prepared with great care, we would like to point out that the responsibility for correct planning lies with the planner and the responsibility for correct installation lies with the installer.

Fundermax Deutschland GmbH

Mundenheimer Weg 2
D-67117 Limburgerhof
infogermany@fundermax.biz
www.fundermax.com

Fundermax France S.a.r.l.

3 Cours Albert Thomas
F-69003 Lyon
T +33 (0)4 78 68 28 31
infofrance@fundermax.biz
www.fundermax.com

Fundermax India Pvt. Ltd.

Sy. No. 7, Honnenahalli, Doddballapur Road,
IND-Yelahanka Hobli, Bangalore - 560064
T +96113 99211
officeindia@fundermax.biz
www.fundermax.in

Fundermax Italia s.r.l.

Viale Venezia 22
I-33052 Cervignano del Friuli
infoitaly@fundermax.biz
www.fundermax.com

Fundermax North America, Inc.

9401-P Southern Pine Blvd.
Charlotte, NC 28273, U.S.
T +1 980 299 0035
office.america@fundermax.biz
www.fundermax.us

Fundermax Polska Sp. z o.o.

ul. Rybitwy 12
PL-30-722 Kraków
T +48 (0)12 65 34 528
infopoland@fundermax.biz

Fundermax Swiss AG

Industriestrasse 38
CH-5314 Kleindöttingen
T +41 (0)56 268 83 11
infoswiss@fundermax.biz
www.fundermax.com

Fundermax GmbH

Klagenfurter Straße 87-89, A-9300 St. Veit/Glan
T: +43 (0)5 9494-0, F: +43 (0)5 9494-4200
office@fundermax.at
www.fundermax.at