

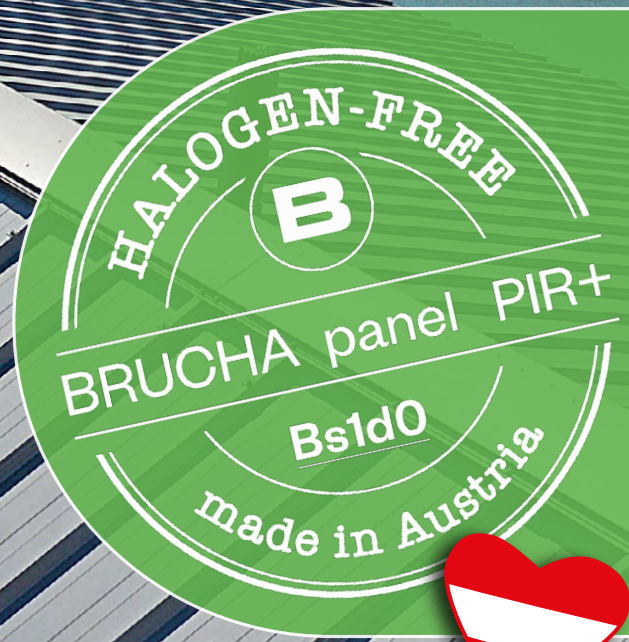
BRUCHA®



PANELS THAT CONNECT.

roof

PIR+ /iQTec
nonhalogen foam technology®
fire protection



ENVIRONMENTALLY CERTIFIED PRODUCTION

We all rely on the efficient use of energy.

This requires work processes to be as sustainable as possible.



BRUCHA

always
one step ahead

We have always been a pioneer in the implementation of efficient energy-saving measures. Numerous actions and projects have been realized in recent years to significantly improve our energy consumption. The implementation of further measures leads to continuous improvements of our production processes, our products and most importantly to new product developments.

Bringing proof that we are a responsible manufacturer, we are certified according to the environmental management system **ISO 14001:2015**. All BRUCHA panels with PIR+ and mineral wool core are certified according the standard for responsible sourcing **BES 6001** - assessment score - **Very Good**.



PANELS THAT CONNECT.

BRUCHA panel | roof

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PIR rigid foam

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FIRE PROTECTION/mineral wool core

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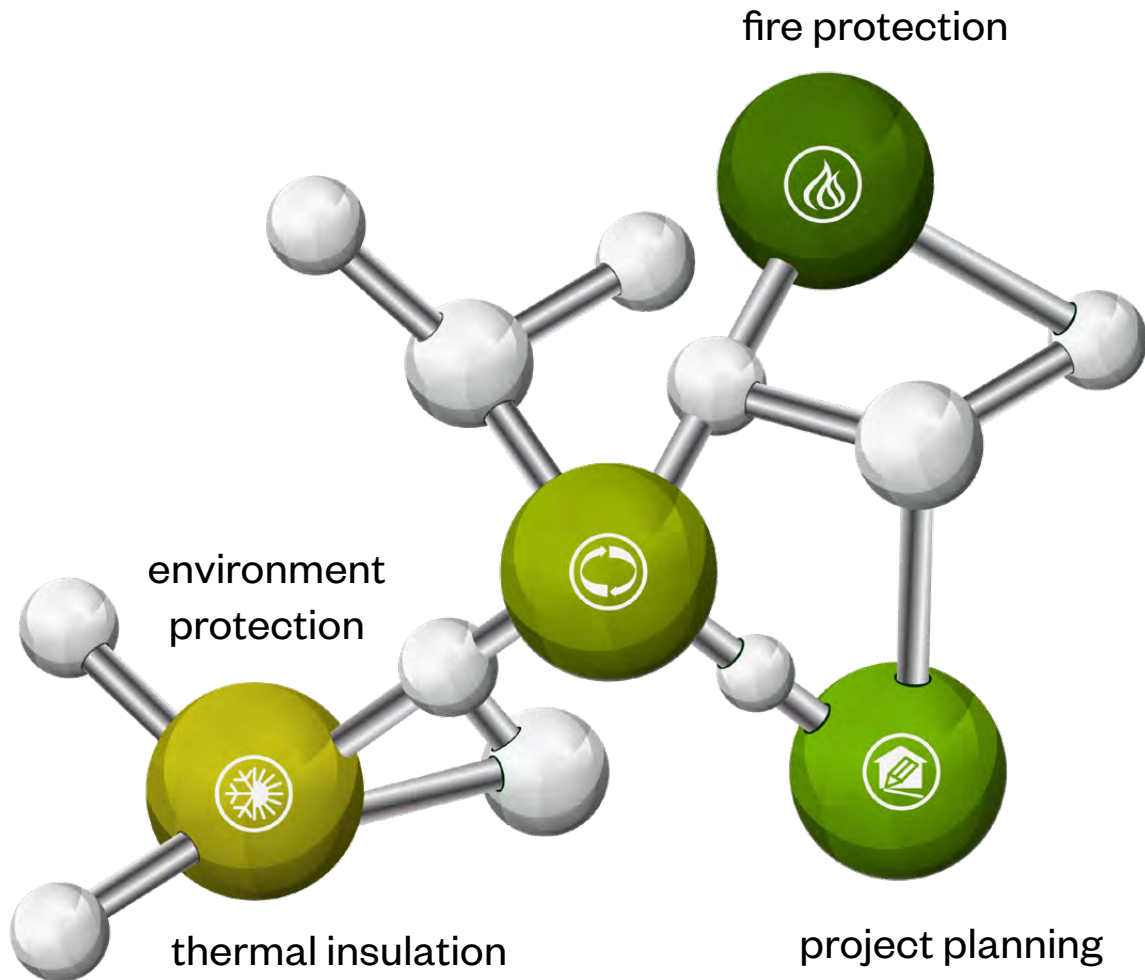
assessment score

Very Good



BRUCHA panel

insulation core



fire behavior
acc. EN 13501-1

Euroclass Bs1d0
flame protection

excellent
energy efficiency

low
thermal conductivity

VOC emission
class A+

outstanding
LCA

low
operating weight

high stability,
thin construction,
floor space gain



PANELS
THAT
CONNECT.

PIR+
nonhalogen

BRUCHA panel PIR+

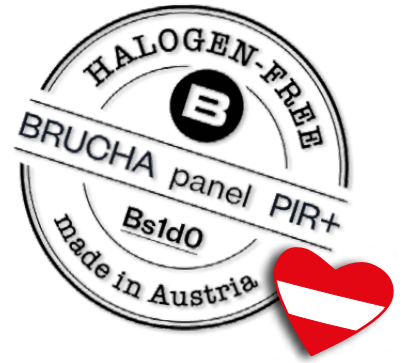


Halogen-free flame protection
for people and environment



roof PIR+
nonhalogen

BRUCHA panel DP roof



DESIGN AND SURFACES Standard - coil-coated, hot-dip galvanised steel sheet

EXTERIOR

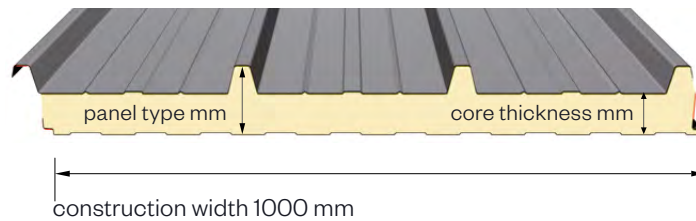
- Exposed side 25 µm polyester coating with a PVC protective film (not UV-resistant - protect from direct sunlight).
The film must be removed before installation or immediately afterwards.
- profile: Trapezoidal profile, 42 mm (according to diagram)
- crown distance: 333.3 mm
- metal gauge: 0.6 mm (smaller metal gauge on request)

INTERIOR

- Exposed side has 25 µm polyester coating without protective PVC film (if required, please specify with order).
- profile 1 = standard (profile 2 and 3 on request)
- metal gauge: 0.6 mm (smaller metal gauge on request)

INSULATION CORE

- **nonhalogen** PIR/polyurethane rigid foam, approx. 96 % closed cells, continuously foamed
- absolutely no chlorofluorocarbons or halogenated chlorofluorocarbons – pentane foam process
- low thermal conductivity
- securely attached to the steel sheet
- density approx. 40 kg/m³



STANDARD COLORS

in accordance with BASIC color range

PANEL CONNECTION

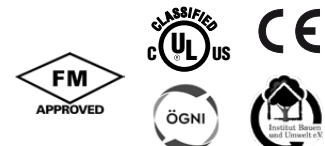
- External, by overlapping of the corrugations, whereby the non-foamed sheet of a panel is placed over the corresponding section of the next panel.
- On the underside, by special shaping, whereby the complementary profile to the corrugation of one roof panel overlaps the corrugation of the second panel, thus achieving a tight connection.
- Unique **TRIPLE SEALING SYSTEM** (as per diagram) offers optimal condensate protection.
- capillary break (refer drawing)

TENDER TEXT

download from: brucha.com

EXTERNAL MONITORING

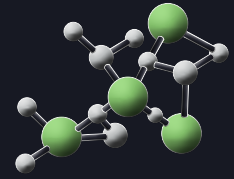
National and international tests and quality standards. We will send the certificates on request.



BRUCHA panel DP roof

PIR+
nonhalogen

iQTec[®]
foam technology[®]

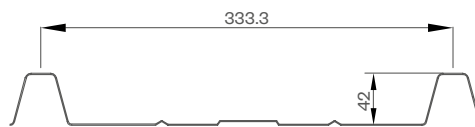


Minimum roof pitch 3° (5.2 %) without transverse joint and penetration.

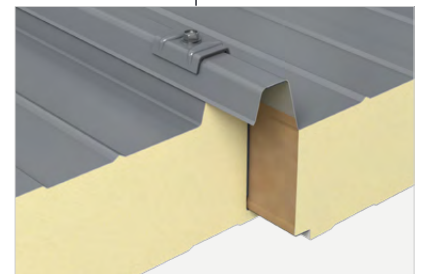
BRUCHA panel DP with PIR/polyurethane core
can be combined with BRUCHA panel DP-F with mineral wool core.

TRAPEZOID PROFILE exterior

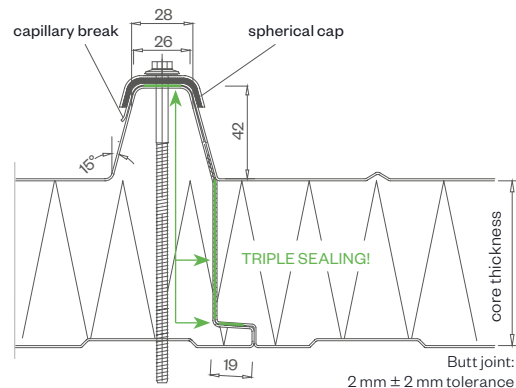
close-up



symbol image - DP



DETAIL/joint geometry



PANEL TYPE	DP 72	DP 82	DP 92**	DP 102	DP 122	DP 142	DP 162	DP 182	DP 202
core thickness mm	30	40	50	60	80	100	120	140	160
PIR+ nonhalogen U-value W/m ² K - EN 14509 including joint section	0.661	0.504	0.407	0.341	0.257	0.207	0.173	0.149	0.130
iQTec on request U-value W/m ² K - EN 14509 including joint section	0.575	0.437	0.352	0.294	0.222	0.178	0.149	0.128	0.112
weight kg/m ²	9.80	10.22	10.63	11.05	11.89	12.72	13.55	14.39	15.22

**DP 92 on request

MANUFACTURING TOLERANCES

in line with EN 14509

SOUND INSULATION

26 dB at 60/80 mm, 27 dB from 100 mm core thickness

MANUFACTURING LENGTHS

max. 23.1 m (extra-long transport from 13.6 m)

TEMPERATURE RESISTANCE

80 °C

SPAN WIDTH TABLES

according SandStat. calculation

FIRE BEHAVIOR

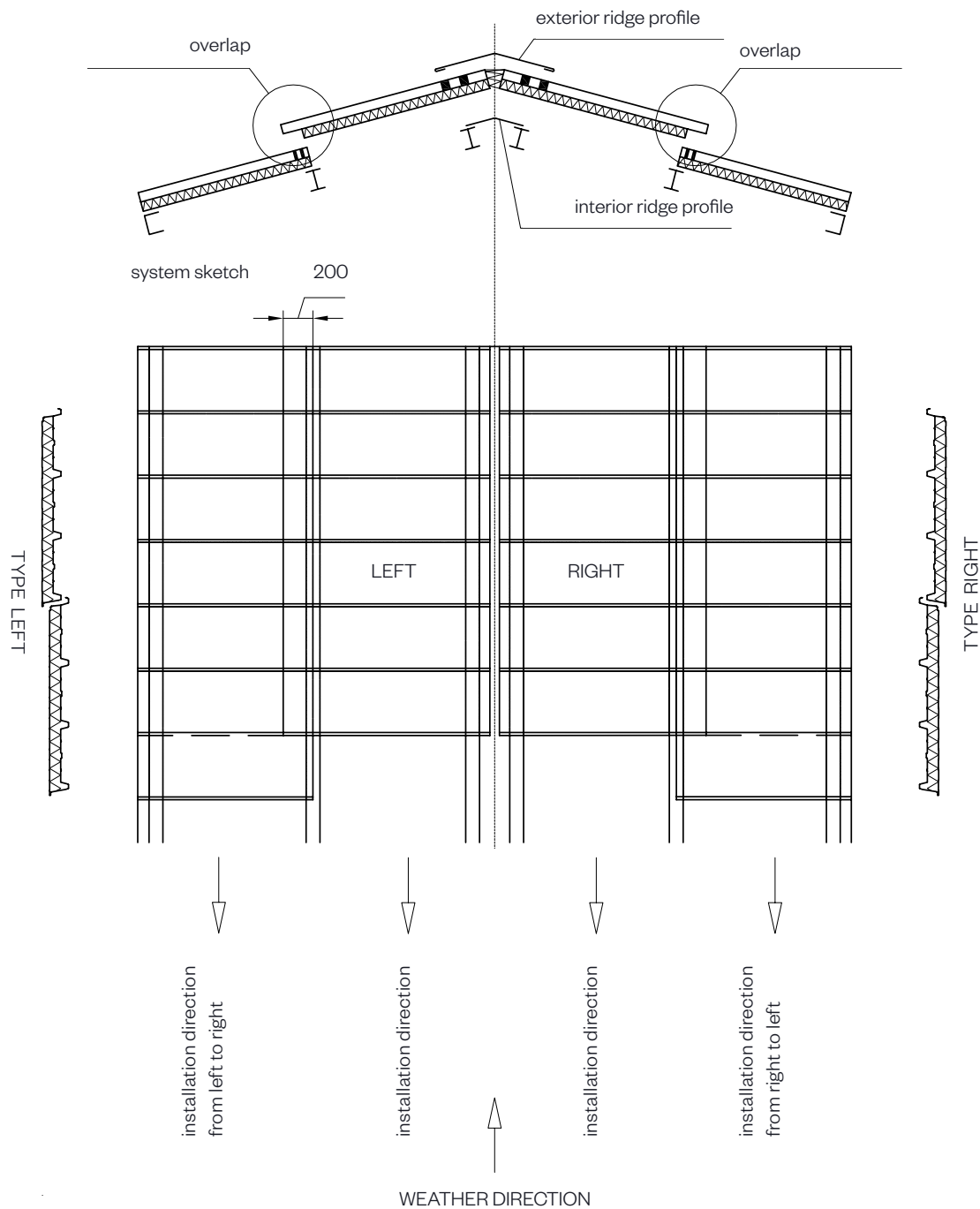
in line with EN 13501-1, Euroclass Bs1d0

BRUCHA[®]

BRUCHA panel DP roof

ROOF ELEMENTS WITH TRANSVERSE JOINT AND OVERLAP

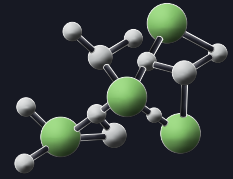
With transverse joints, penetrations or roof lights – minimum pitch 5° (8.6 %)



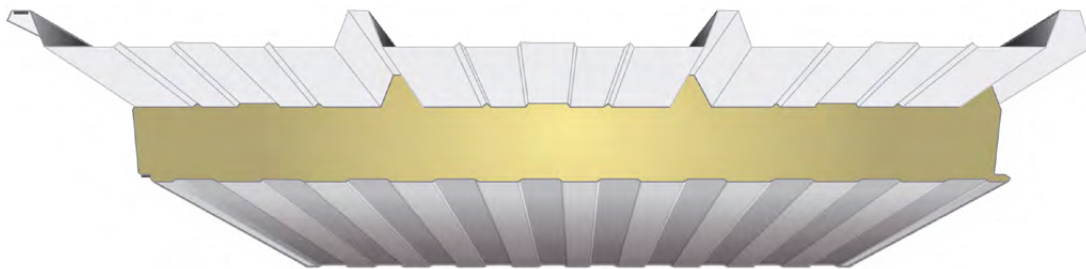
BRUCHA panel DP roof

PIR+
nonhalogen

iQTec[®]
foam technology[®]



SHEET METAL SEPARATION CUT – NOTCHES



A notch in the eave area is recommended in order to rule out any possibility of the sheet metal shell lifting up from the insulation body (available at a surcharge).

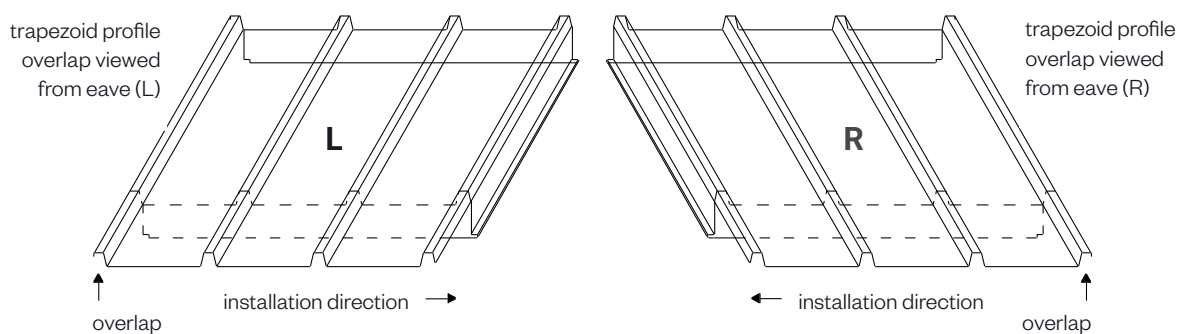
Similarly, a drip cap should be fitted in the eave area so as to prevent a capillary effect (only possible on the construction site). These measures prevent the formation of corrosion between the sheet metal shell and the insulation.

Please state when ordering	Notch length
NOTCH IN EAVE	60 mm (Standard)
NOTCH FOR OVERLAP	200 mm (Standard)

Possible notch lengths 60, 80, 100, 120, 150, 200, 250 and 300 mm

TRAPEZOID METAL SHEET 42/333 suitable for DP and DP-F

NOTCH METHOD (viewed from eave):



BRUCHA panel DP

€CO-roof



DESIGN AND SURFACES Standard - coil-coated, hot-dip galvanised steel sheet

EXTERIOR

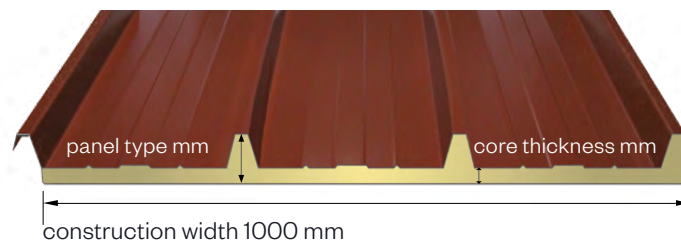
- Exposed side 25 µm polyester coating with a PVC protective film (not UV-resistant - protect from direct sunlight).
The film must be removed before installation or immediately afterwards.
- profile: Trapezoidal profile, 42 mm (according to diagram)
- crown distance: 333.3 mm
- metal gauge: 0.6 mm (smaller metal gauge on request)

INTERIOR

- Aluminium lining – Stucco white, layer thickness 80 µm, resistant to organic acids.
- Impairment of the visual impact is possible due to the thin interior shell.
- For areas where the view from below must satisfy the highest visual requirements, we recommend the BRUCHA panel roof – DP with sheet metal interior shell.

INSULATION CORE

- **nonhalogen** PIR/polyurethane rigid foam, approx. 96 % closed cells, continuously foamed
- absolutely no chlorofluorocarbons or halogenated chlorofluorocarbons – pentane foam process
- low thermal conductivity
- securely attached to the steel sheet
- density approx. 40 kg/m³



STANDARD COLORS

in accordance with BASIC color range, identical to BRUCHA panel roof DP

PANEL CONNECTION

- On the exterior by overlapping of beads, whereby the unfoamed sheet metal part of a panel is laid on the corresponding counterpart of the following panel (including SEALS!).
- capillary break (see drawing)

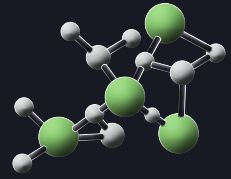
- for agricultural structures
- as protection against the formation of condensation
- at least 15 mm insulation
- reasonably priced alternative to BRUCHA panel PIR+/iQTec roof - DP

BRUCHA panel DP

€CO-roof

PIR+
nonhalogen

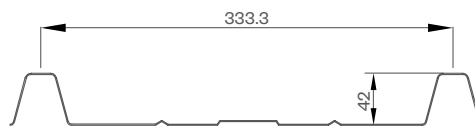
iQTec[®]
foam technology[®]



Minimum roof pitch 3° (5.2 %)

TRAPEZOID PROFILE exterior

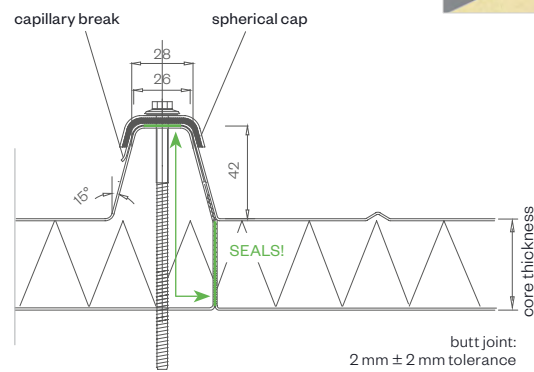
close-up



symbol image - €CO roof



DETAIL/joint geometry



PANEL TYPE	€CO 57	€CO 72
core thickness mm	15	30
PIR+ nonhalogen U-value W/m ² K - EN 14509 including joint section	1.211	0.661
iQTec on request U-value W/m ² K - EN 14509 including joint section	1.068	0.575
weight kg/m ²	5.45	6.07

MANUFACTURING TOLERANCES

in line with EN 14509

FIRE BEHAVIOR

in line with EN 13501-1, Euroclass Bs1d0

MANUFACTURING LENGTHS

on request (extra-long transport from 13.6 m)

TEMPERATURE RESISTANCE

80 °C

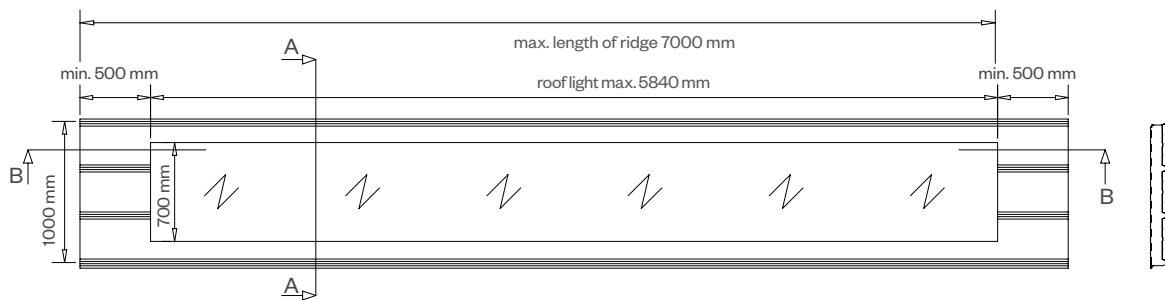
BRUCHA[®]

BRUCHA panel DP-L roof light

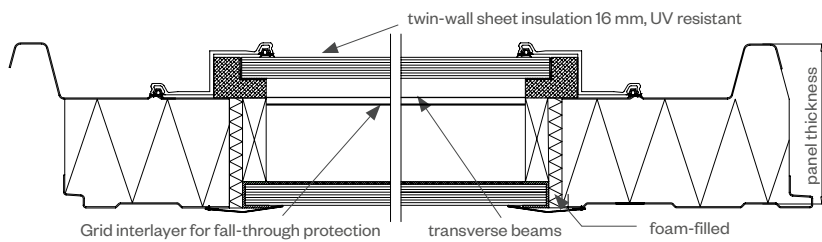
Minimum roof pitch 5° (8.6%)



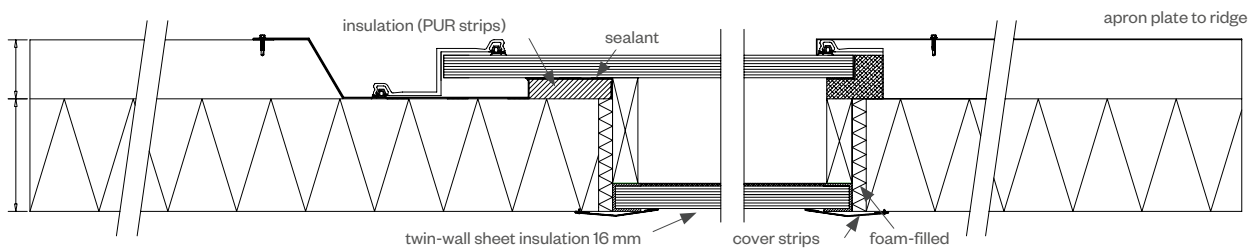
planning grid: 1000 mm



system cross-section A-A – transverse



system cross-section B-B – longitudinal

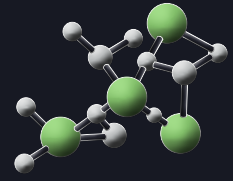


We will be happy to send certificates on request!

BRUCHA panel DP-L roof light

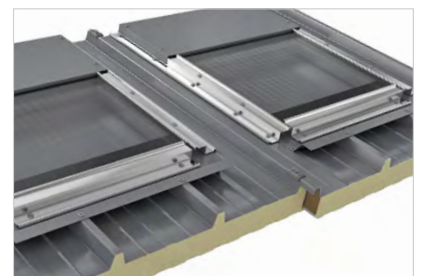
PIR+
nonhalogen

iQTec[®]
foam technology[®]

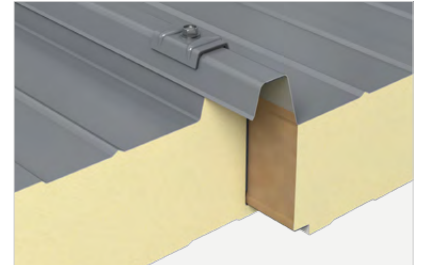


Minimum roof pitch 5° (8.6 %)

- Installation without system change of the BRUCHA panel PIR+/iQTec roof – DP is possible.
- No additional substructure necessary.
- Multiple roof lights can be installed adjacent to one another.
- High strength thanks to double-skin multi-wall light elements made from polycarbonate.
- Grid interlayer for fall-through protection.
- Evidence of load capacity - spot loading max. 4.5 KN (including reduction). accessibility test - for DP-L 142 TU Darmstadt (IFSW) - PB 18/18p
- Light transmission 70 %. UV resistant.
- Including apron plate on ridge side.
- Outstanding insulation characteristics.
- Fire behavior in accordance with EN 13501-1, Euroclass B, flame-retardant.



symbol image - DP roof



PANEL TYPE	DP-L 82	DP-L 102	DP-L 122	DP-L 142	DP-L 162	DP-L 182	DP-L 202
core thickness mm	40	60	80	100	120	140	160
U-value W/m ² K*	~0.81	~0.73	~0.73	~0.64	~0.64	~0.64	~0.64

*U-values are calculated mathematically and are approximate.

DP-L without approval for Germany



BRUCHA®



PANELS THAT CONNECT.



fire protection

BRUCHA panel roof





fire protection

BRUCHA panel DP-F roof



DESIGN AND SURFACES Standard - coil-coated, hot-dip galvanised steel sheet

EXTERIOR

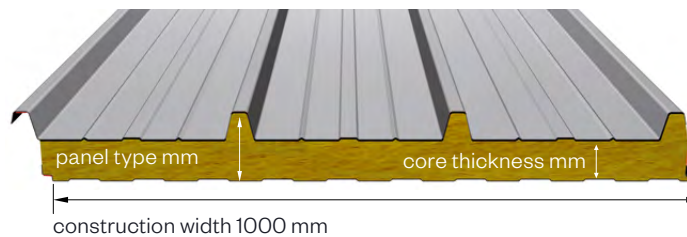
- Exposed side 25 µm polyester coating with a PVC protective film (not UV-resistant - protect from direct sunlight).
The film must be removed before installation or immediately afterwards.
- profile: trapezoidal profile, 42 mm (according to diagram)
- crown distance: 333.3 mm
- metal gauge: 0.6 mm (smaller metal gauge on request)

INTERIOR

- Exposed side has 25 µm polyester coating without protective PVC film (if required please specify with order).
- profile 1 = standard (profile 2 and 3 on request)
- metal gauge: 0.6 mm (smaller metal gauge on request)

INSULATION CORE

- structural, web-oriented mineral fibre wool
- securely attached to the sheet steel shell
- density approx. 120 kg/m³, 140 kg/m³ available on request



STANDARD COLORS

in accordance with BASIC color range

PANEL CONNECTION

- External, by overlapping of the profiles, whereby the non-foamed sheet of a panel is placed over the corresponding section of the next panel.
- On the underside, by special shaping, whereby the complementary profile to the profile of one roof panel overlaps the profile of the second panel. The included seals offer additional reliability, achieving a reliably tight connection.
- capillary break (acc. drawing)

TENDER TEXT

download from: brucha.com

EXTERNAL MONITORING

National and international tests and quality standards. We will send the certificates on request.

VAPOUR DIFFUSION

Determined by climatic conditions inside building. Panels must be installed vapour tight.

PANEL INSTALLATION

When working with our products, please follow our installation guidelines at brucha.com/downloads



brucha.com



BRUCHA panel DP-F

roof



fire protection

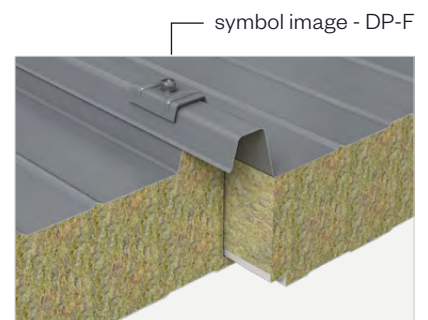
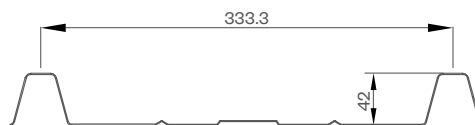
Minimum roof pitch 3° (5.2 %) without transverse joint and penetration.

BRUCHA panel DP-F with mineral wool core

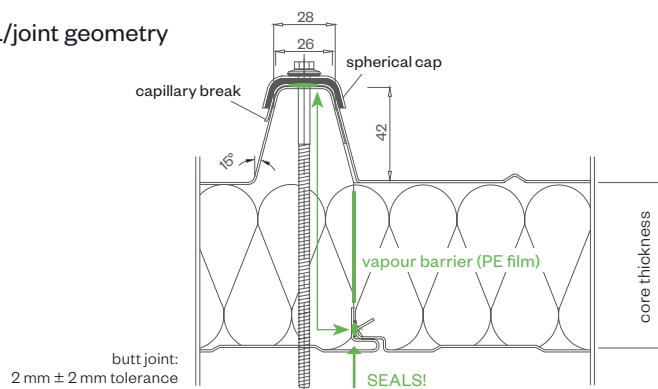
can be combined with BRUCHA panel DP with polyurethane core.

TRAPEZOID PROFILE

exterior - close-up



DETAIL/joint geometry



A notch in the eave area is required in order to rule out any possibility of the sheet metal shell lifting up from the insulation body (available at a surcharge). Similarly, a drip cap should be fitted in the eave area so as to prevent a capillary effect (only possible on the construction site).

These measures prevent the formation of corrosion between the sheet metal shell and the insulation. We recommend to cover the core in the end with (part No. Z 13b) cog sheet.

PANEL TYPE	DP-F 102	DP-F 122	DP-F 142	DP-F 162	DP-F 182	DP-F 192	DP-F 202	DP-F 222	DP-F 242
core thickness mm	60	80	100	120	140	150	160	180	200
U-value W/m ² K - EN 14509 including joint section	0.659	0.504	0.409	0.344	0.297	0.278	0.261	0.233	0.210
weight kg/m ²	16.80	19.31	21.81	24.31	26.81	28.07	29.32	31.82	34.32
fire resistance*	REI 30	REI 90	REI 120	REI 120	REI 120	REI 120	REI 120	REI 120	REI 120

*Certificates must be checked for the usage case in question (horizontal/vertical/span width etc.).

MANUFACTURING TOLERANCES

in line with EN 14509

SOUND INSULATION

32 dB (frequency dependent)

MANUFACTURING LENGTHS max. 15.9 m (extra-long transport from 13.6 m) ATTENTION! Danger of kinking due to heavy weight in the case of long panels!

SPAN WIDTH TABLES

according SandStat. calculation

FIRE BEHAVIOR

in line with EN 13501-1, Euroclass A2s1d0, **non-combustible**

BRUCHA®

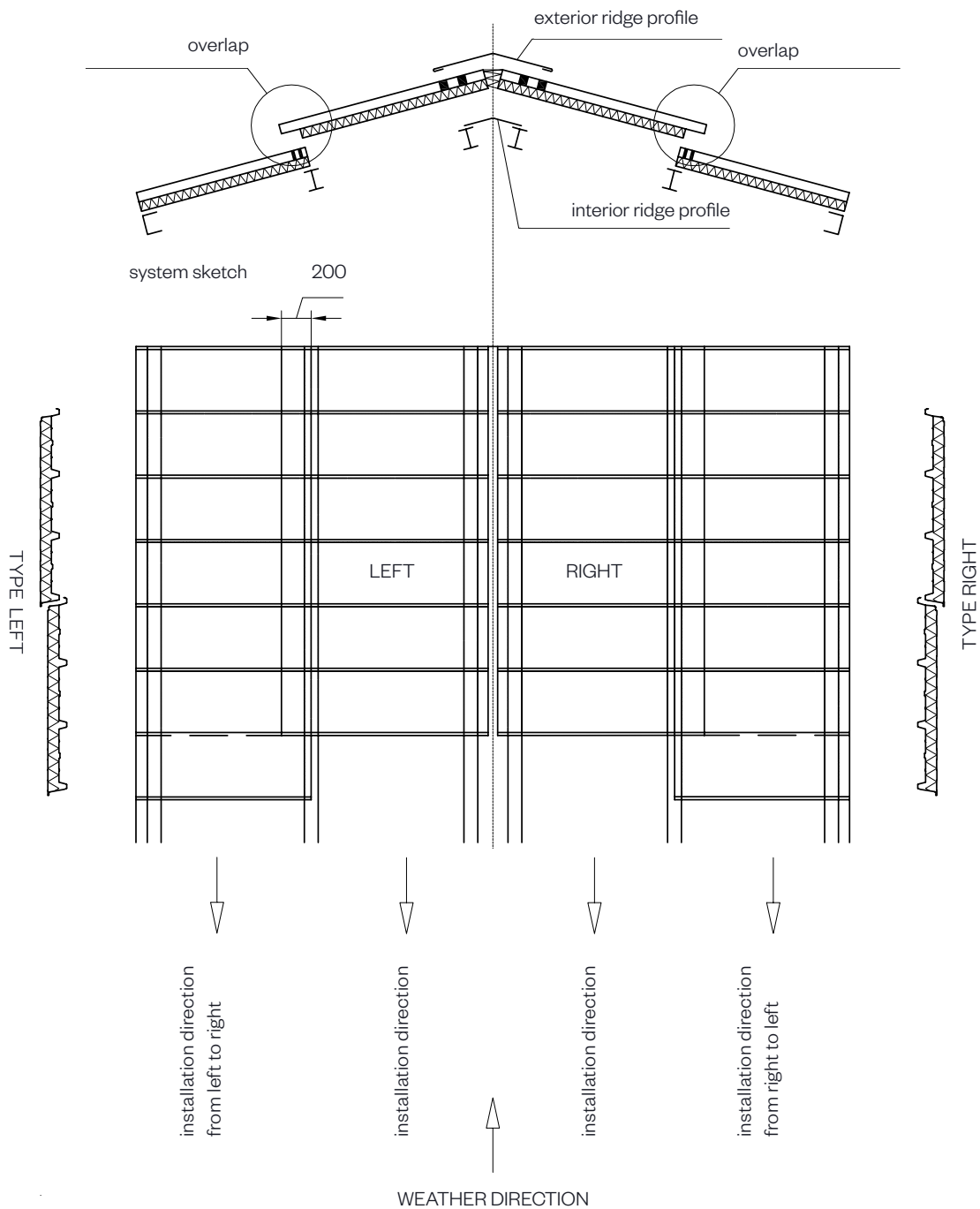


fire protection

BRUCHA panel DP-F roof

ROOF ELEMENTS WITH TRANSVERSE JOINT AND OVERLAP

With transverse joints, penetrations or roof lights – minimum pitch 5° (8.6 %)



BRUCHA panel DP-F

roof



fire protection

SHEET METAL SEPARATION CUT – NOTCHES



A notch in the eave area is recommended in order to rule out any possibility of the sheet metal shell lifting up from the insulation body (available at a surcharge). Similarly, a drip cap should be fitted in the eave area so as to prevent a capillary effect (only possible on the construction site).

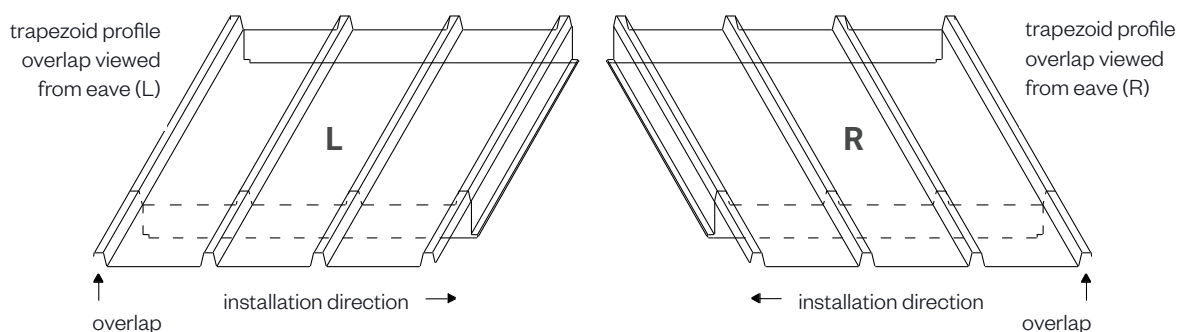
These measures prevent the formation of corrosion between the sheet metal shell and the insulation.

Please state when ordering	Notch length
NOTCH IN EAVE	60 mm (Standard)
NOTCH FOR OVERLAP	200 mm (Standard)

Possible notch lengths 60, 80, 100, 120, 150, 200, 250 and 300 mm

TRAPEZOID METAL SHEET 42/333 suitable for DP and DP-F

NOTCH METHOD (viewed from eave):



PANELS THAT CONNECT.



Roof greening

Your personal contact at BRUCHA can provide you with detailed information on green roofs and PV mounting.

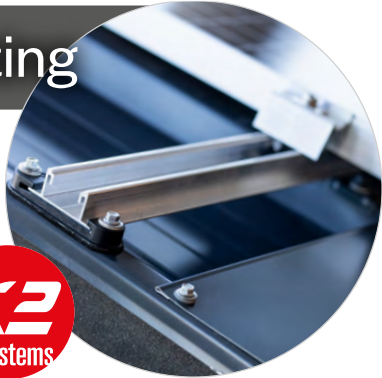


assessment score
Very Good



PV mounting

Proven and DiBt-approved photovoltaic mounting system for sandwich panel installation.



PRODUCTS

- > BRUCHA panels
- > Cold walk-ins
- > Doors & gates
- > Climate test chambers
- > Accessories

SERVICES

- > Assemblies for special and cold room construction
- > Maintenance and service
- > BRUCHA Food Engineering

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brucha.com

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