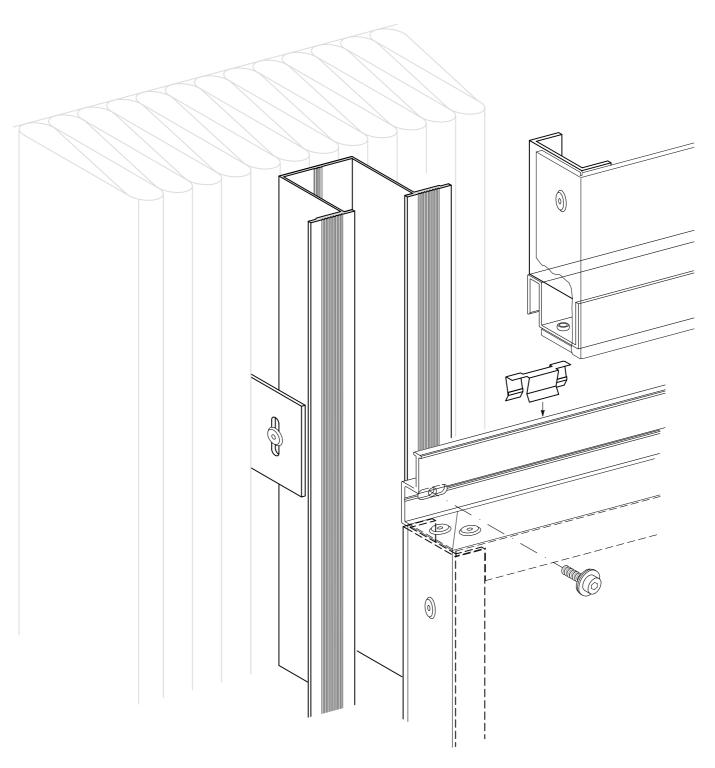
ALUCOBOND Design Manual

Facade, Tray Panels SZ 20

- Horizontal Panel Layout

Part 2



Description

Extruded Sections and Accessories

Examples

Page 1.1

Page 2.1 - 2.3

Page 3.10 - 3.90

Facade, Tray Panels SZ 20

- Horizontal Panel Layout

Description

With tray panel-elements based on the SZ-principle aesthetic and architectural high-grade fascia claddings can be manufactured.

Based on construction principle with S-and Z-sections SZ 20 tray panels can be installed fast and simple (tongue and groove principle).

The maximum horizontal and vertical width of gap is 20 mm.

The minimum horizontal and vertical width of gap depends on length of elements and construction conditions.

The tray panel-elements are only fixed at each upper tray panel edge on the vertical arranged substructure section (hat section). To this the Z-section is fixed by stainless fascia screws to the hat sections.

The vertical arranged U-sections are not fixed to the sub-construction.

To ensure the thermal expansion due to the changes in temperature, in the Z-section oblong-holes are to be arranged in the lateral fixing points - depending on the length of the element.

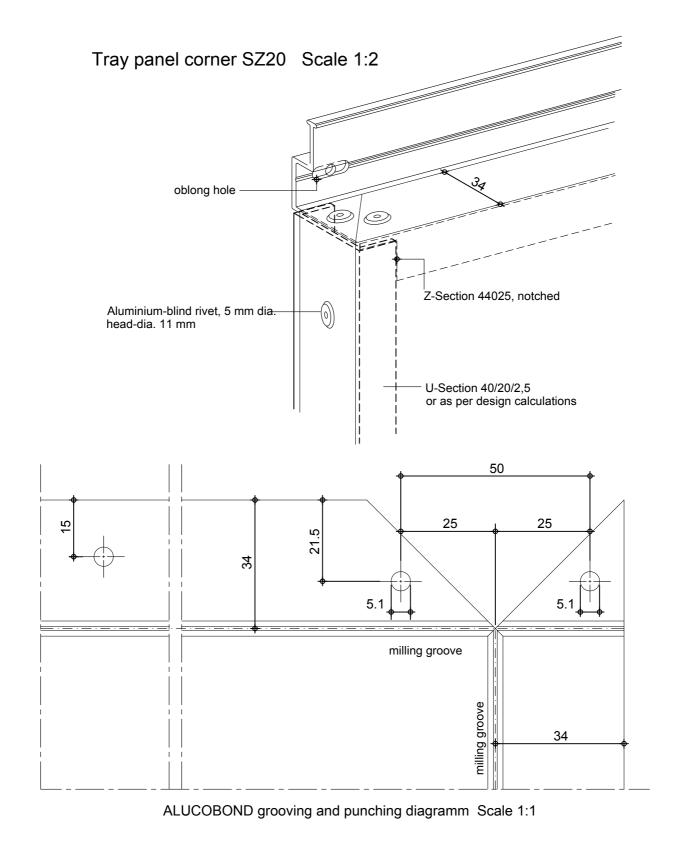
To avoid clatter noise between the horizontal sections as a result of wind loading it is recommended to use plastic clips in a distance of about 1 m.

With favourable loadings, SZ 20 panels can span large distances between vertical supports.

The maximum element-measurements dependent on the available production width and on the occurring wind loads.

Compared with solid metal tray panels, ALUCOBOND tray panels offer the following advantages:

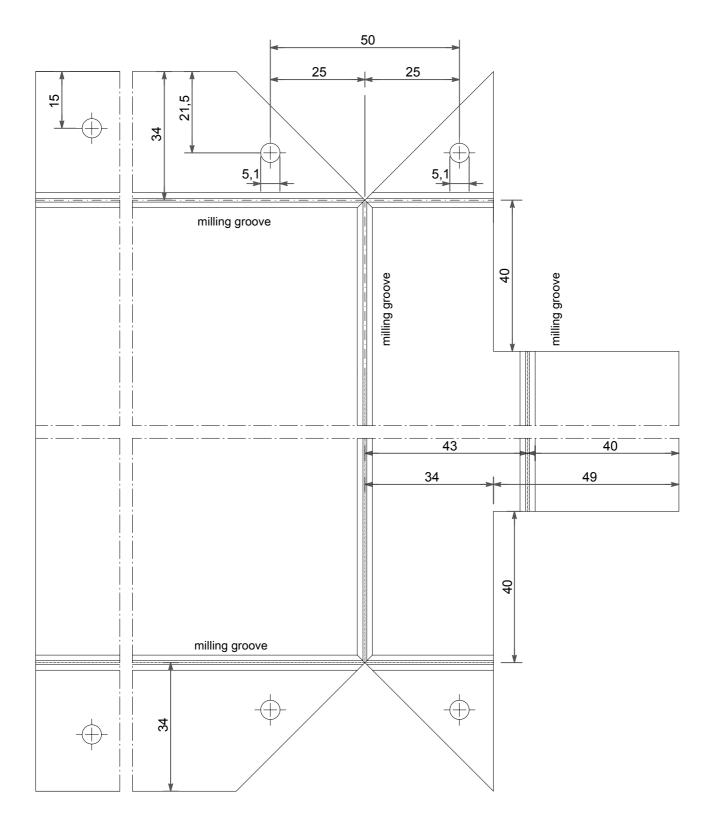
- ALUCOBOND panels are delivered ready for fitting with a stovelacquered surface finish (no subsequent painting required).
- Absolute surface flatness, even after folding.
- Folds can be made by hand (no folding machine required).
- High inherent strength of ALUCOBOND panels permits the use of tray panels with flat surfaces (no auxiliary reinforcement required for large elements).
- Low net weight facilitates simple and rapid installation.
- No anti-drumming coating required.



Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Description

Tray Panel SZ20 developed view for a vertical edge with a double folding Valid only for specific loads and panel dimensions (as per design calculation)



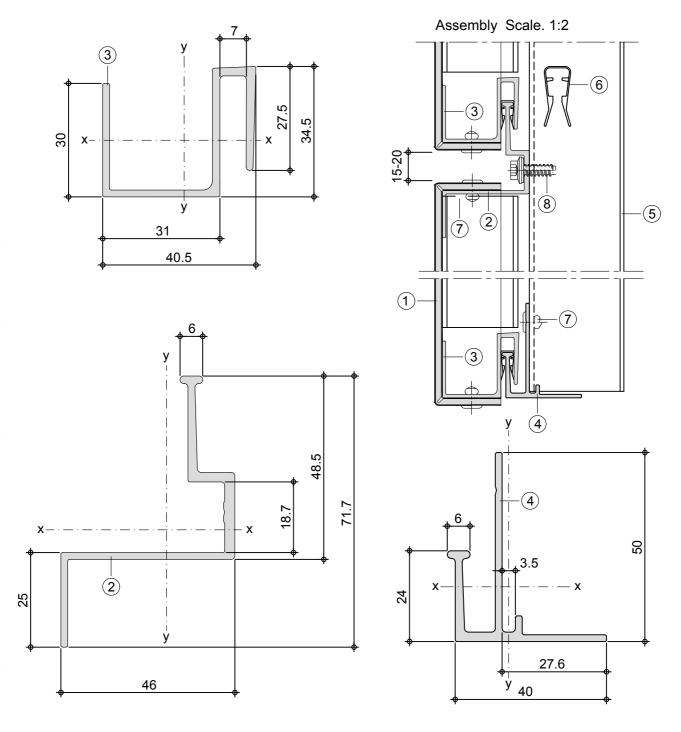
Product changes in the sense of a technical progress are reserved. All advice recommendation and information is given to the best of our knowledge but without any obligation on our part 07/15

Facade, Tray Panels SZ 20

- Horizontal Panel Layout

Extruded Sections and Accessories

On the CD "Architecture in Detail" you'll find in the the menu "Processing" a link to open the supplier addresses



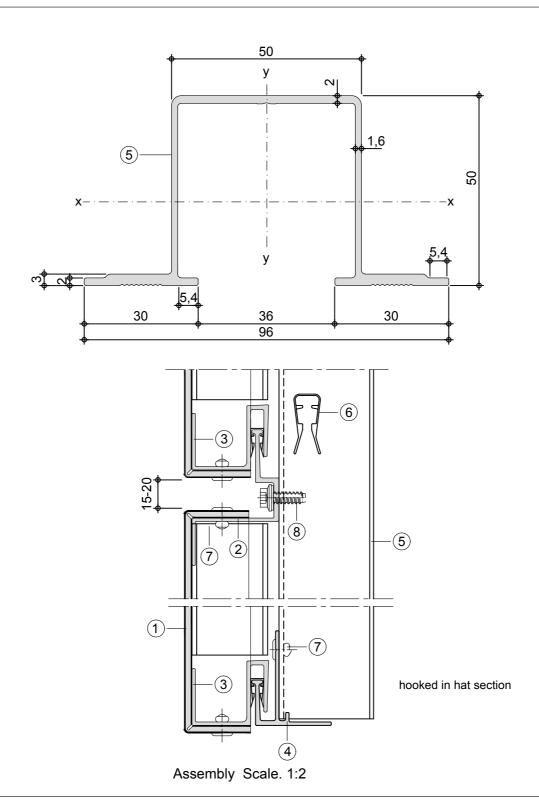
- 1 ALUCOBOND
- ② Z-Section 40 025, weight 0,727 kg/m periphery 258 mm $Ix = 8,12 \text{ cm}^4$, $Wx = 2,20 \text{ cm}^3$, $Iy = 6,80 \text{ cm}^4$, $Wy = 2,42 \text{ cm}^3$
- ③ S-Section 44 024, weight 0,667 kg/m periphery 251 mm $Ix = 3,21 \text{ cm}^4$, $Vx = 1,68 \text{ cm}^3$, $Vy = 5,30 \text{ cm}^4$, $Vy = 2,28 \text{ cm}^3$
- 4 Extruded section 44 026 (starter), weight 0,625 kg/m periphery 233 mm lx = 4,58 cm⁴, Wx = 1,25 cm³, ly = 2,13 cm⁴, Wy = 0,75 cm³

Facade, Tray Panels SZ 20

- Horizontal Panel Layout

Extruded Sections and Accessories

On the CD "Architecture in Detail" you'll find in the the menu "Processing" a link to open the supplier addresses



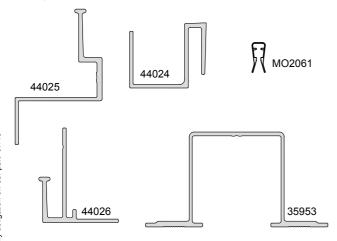
- (5) Extruded hat section 35 953, weight 1,070 kg/m periphery 405 mm $Ix = 16,31 \text{ cm}^4$, $Wx = 5,81 \text{ cm}^3$, $Iy = 28,08 \text{ cm}^4$, $Wy = 5,85 \text{ cm}^3$
- 6 Plastic clip SZ 20 (Length: 40 mm)
- Aluminium-blind rivet, with stainless steel mandrel, 5 mm dia., head-dia. 11 mm Rivetable thickness = total material thickness plus 2 mm
- 8 Self-tapping screw or self drilling screw

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

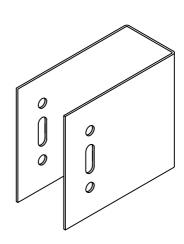
Extruded Sections and Accessories

On the CD "Architecture in Detail" you'll find in the the menu "Processing" a link to open the supplier addresses

Extruded aluminium sections for System SZ 20 and plastic clip

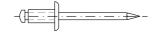


Wall bracket/substructre



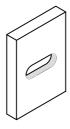
Alu-blind-rivet with painted head

with stainless steel mandrell Dia. 5 mm, head-dia. 11 or 14 mm

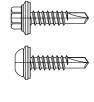


Plastic board

for thermal separation of wall bracket



Fixing of tray panels to sub-structure



Self drilling screws, stainless steel with stainless steel sealing washer Ø 14 mm



Self tapping screw, cylinder head, stainless steel, with stainless steel sealing washer Ø 14 mm

Verbindungsmittel der Tragprofile mit den Wandhaltern



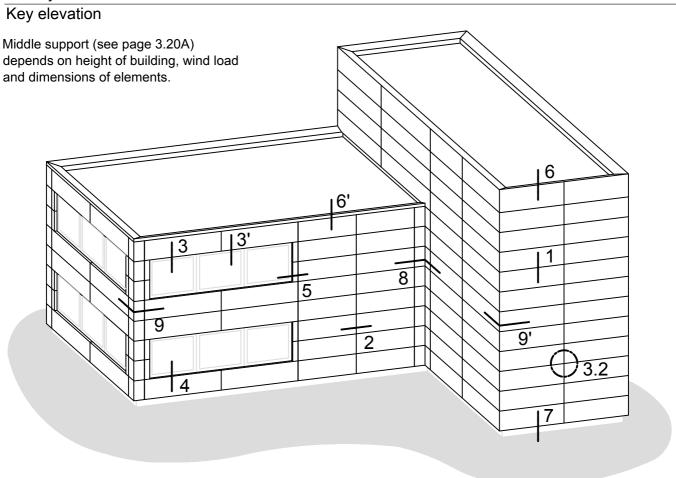
- EJOT self drilling screw JT4-3H/5-5,5x19
- HILTI self drilling screw S-AD 01 S 5,5x19
- SFS self drilling screw SLA5/4-6-S4-6,0x19

- EJOT

- self drilling screw JT3-6-5,5x25-E14
- self tapping screw JZ3-ZT-6,3x19-E14
- HILTI
 - self drilling screw S-MD 33 PS 5,5x22
 - self drilling screw S-MD 31 PS 5,5x22
- - self drilling screw SX5-S14-5,5x26

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Survey

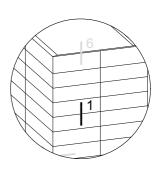


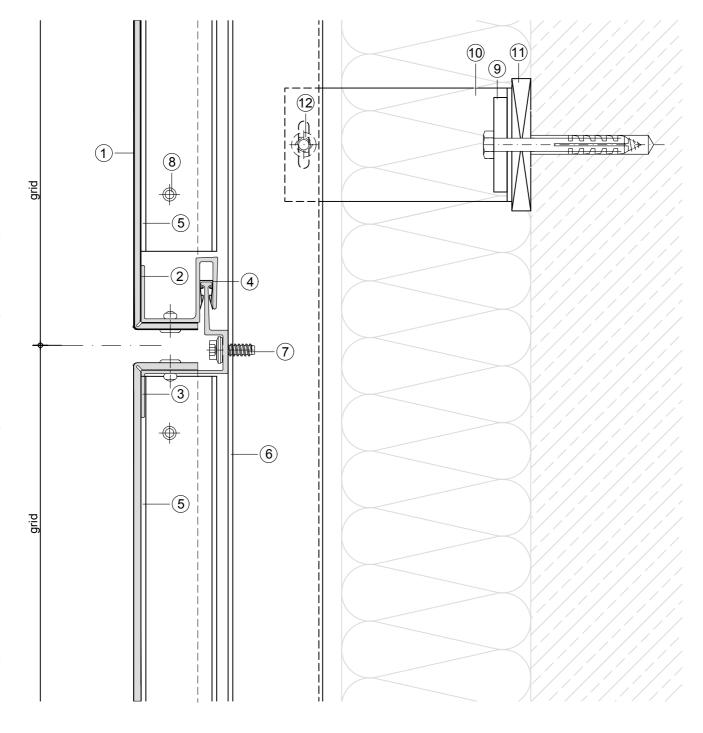
Horizontalverlegung

3.2	Cross Joint/Elevation	
3.10	Horizontal joint Schr	nitt 1 - 1
3.20	Vertical joint	2 - 2
3.30	Window head	3 - 3
3.40	Window sill	4 - 4
3.50	Window jamb	5 - 5
3.60	Parapet return	6 - 6
3.70	Lower cladding end	7 - 7
3.80	Corner segment / Inner corner	8 - 8
3.90	Corner segment / Outer corner	9 - 9

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Horizontal Joint (Section 1-1) Scale 1:2



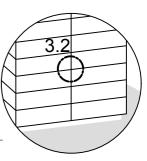


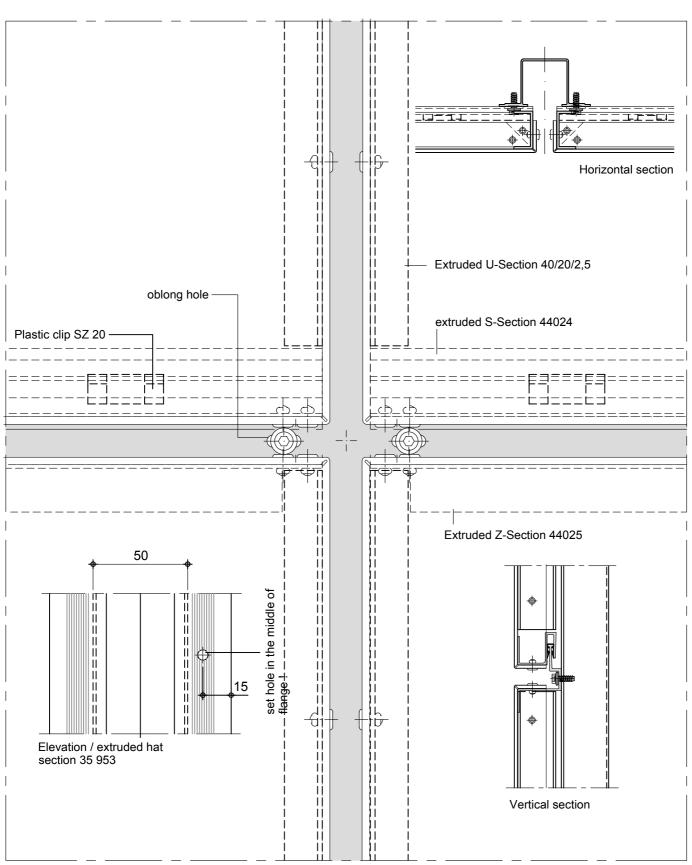
- 1 ALUCOBOND
- 2 Extruded S-Section 44024
- 3 Extruded Z-Section 44025
- 4 Plastic clip SZ 20
- 5 Extruded U-Section 40/20/2,5
- 6 Extruded hat section 35 953

- Self-tapping screw or self drilling screw
- (8) Aluminium-blind rivet
- 9 Extruded Al-liner
- 10 Wall bracket
- 1 Plastic board (thermal separation)
- 12 Self drilling screw

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

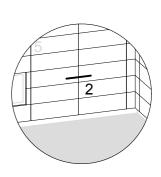
Cross joint / Elevation Scale 1:2

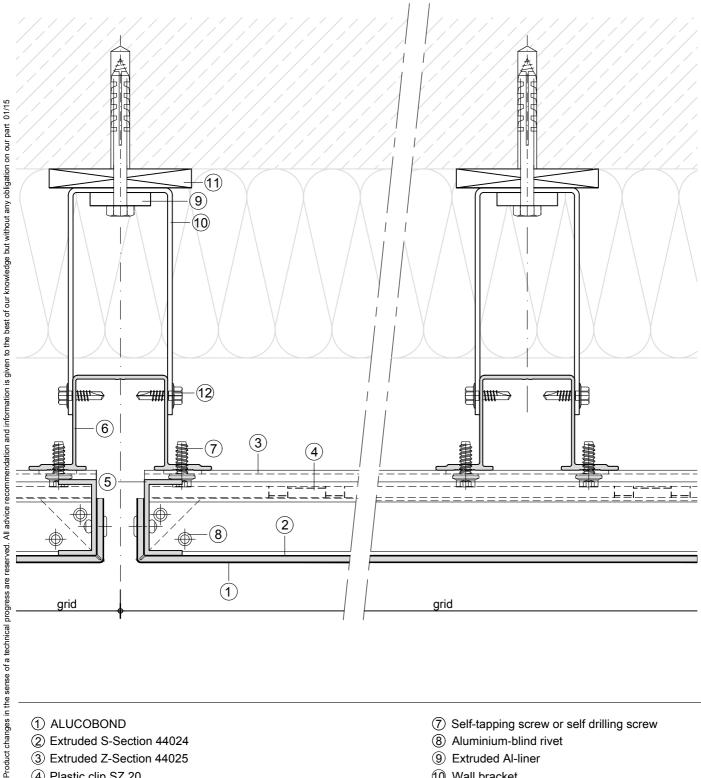




Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Vertical Joint / with Middle Support (Section 2'-2') Scale 1:2



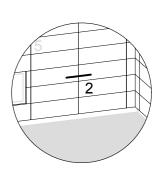


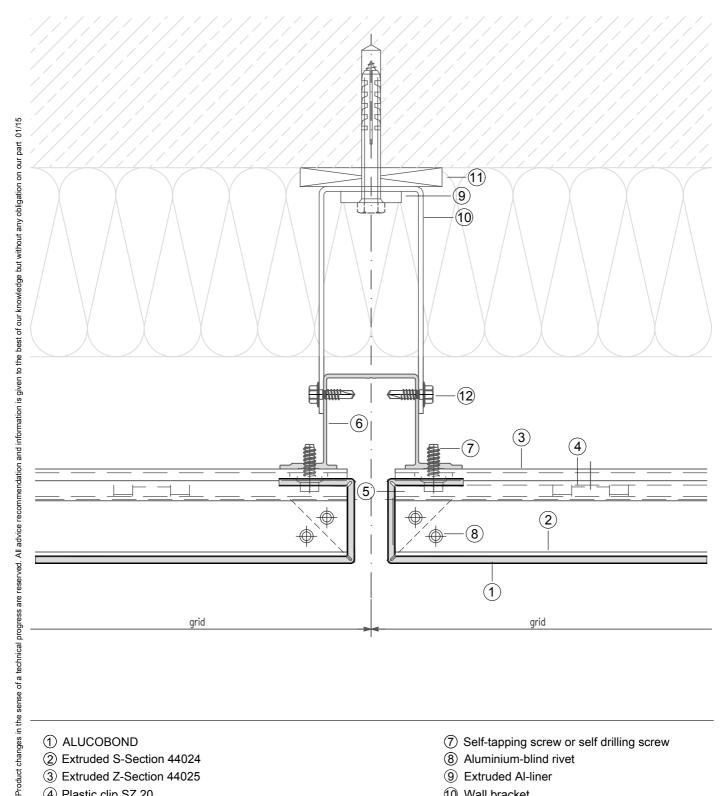
- 1 ALUCOBOND
- 2 Extruded S-Section 44024
- 3 Extruded Z-Section 44025
- 4 Plastic clip SZ 20
- 5 Extruded U-Section 40/20/2,5
- 6 Extruded hat section 35 953

- Self-tapping screw or self drilling screw
- (8) Aluminium-blind rivet
- 9 Extruded Al-liner
- 10 Wall bracket
- 1 Plastic board (thermal separation)
- 12 Self drilling screw

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Vertical Joint (Section 2-2) Scale 1:2





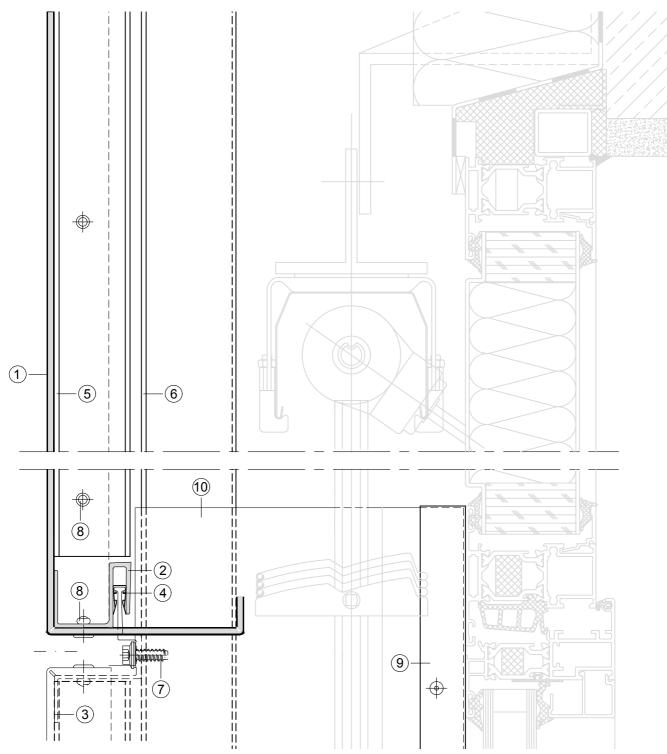
- 1 ALUCOBOND
- 2 Extruded S-Section 44024
- 3 Extruded Z-Section 44025
- 4 Plastic clip SZ 20
- (5) Vertical double folding
- 6 Extruded hat section 35 953

- 7 Self-tapping screw or self drilling screw
- (8) Aluminium-blind rivet
- Extruded Al-liner
- 10 Wall bracket
- 1 Plastic board (thermal separation)
- 12 Self drilling screw

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Horizontal Joint (Section 1-1) Scale 1:2



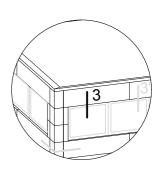


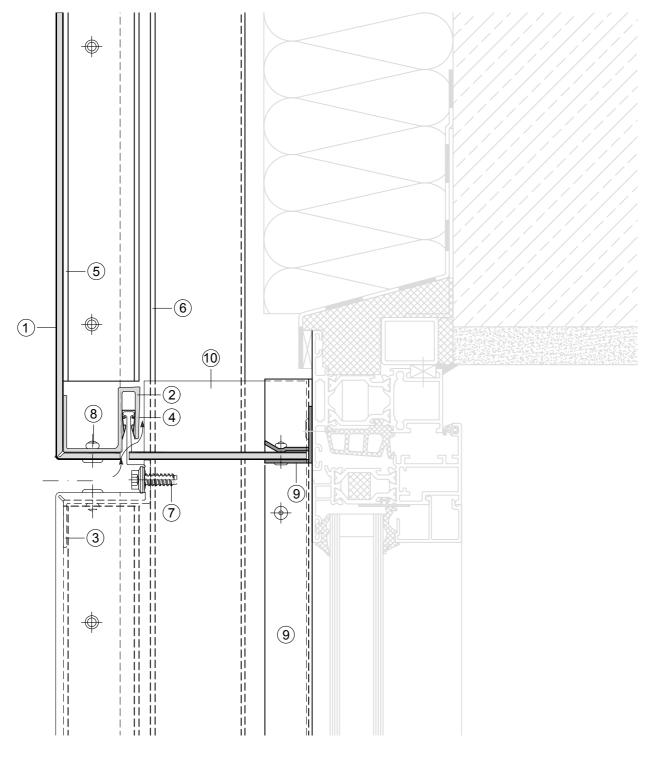
- 1 ALUCOBOND
- 2 Extruded S-Section 44024
- ③ Extruded Z-Section 44025
- 4 Plastic clip SZ 20
- ⑤ Extruded U-Section 40/20/2,5
- 6 Extruded hat section 35 953

- Self-tapping screw or self drilling screw
- 8 Aluminium-blind rivet
- 9 Extruded window connecting section 38 464
- 10 Reveal

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Window Head (Section 3-3, Area of Reveal) Scale 1:2



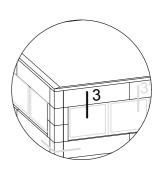


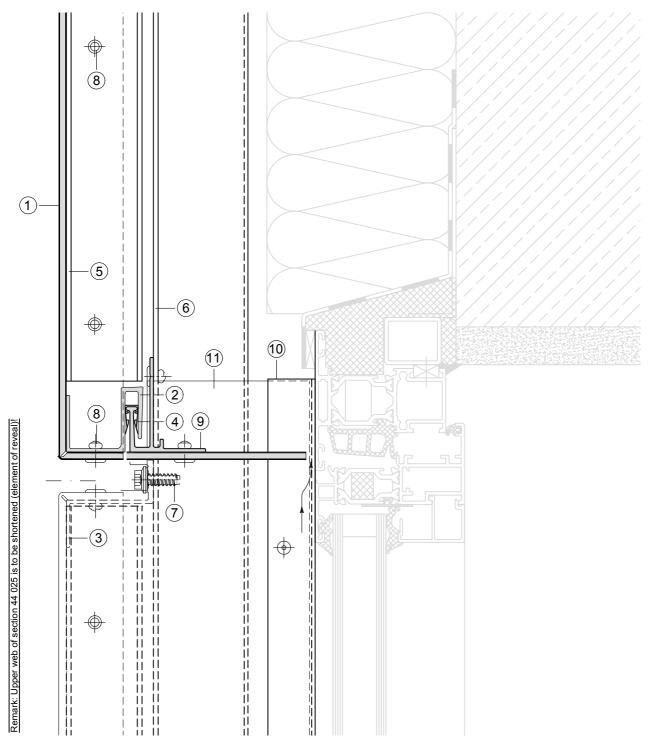
- 1 ALUCOBOND
- 2 Extruded S-Section 44024
- 3 Extruded Z-Section 44025
- 4 Plastic clip SZ 20
- ⑤ Extruded U-Section 40/20/2,5
- 6 Extruded hat section 35 953

- Self-tapping screw or self drilling screw
- 8 Aluminium-blind rivet
- 9 Extruded window connecting section 38 464
- 10 Reveal

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Window Head (Section 3-3, Area of Reveal) Scale 1:2





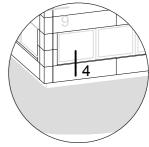
- 1 ALUCOBOND
- 2 Extruded S-Section 44024
- 3 Extruded Z-Section 44025
- 4 Plastic clip SZ 20
- ⑤ Extruded U-Section 40/20/2,5
- 6 Extruded hat section 35 953

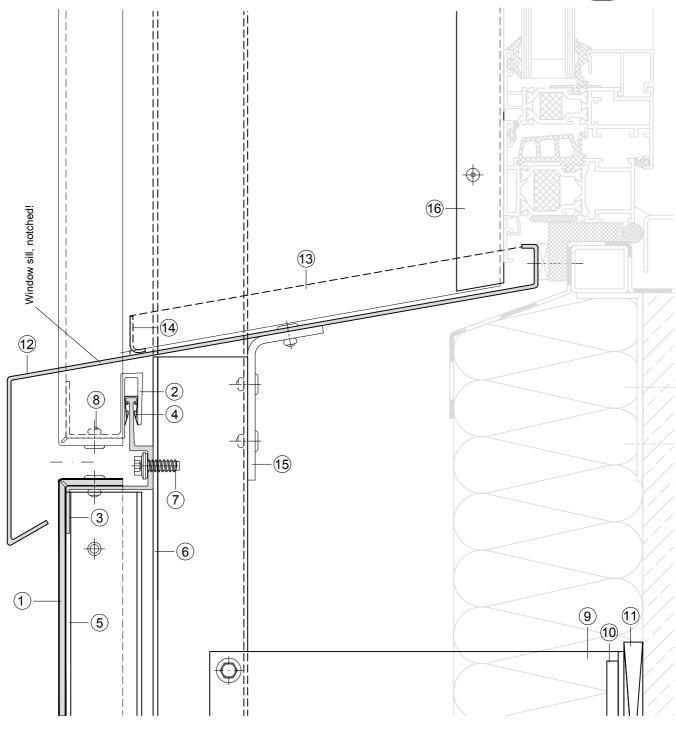
- Self-tapping screw or self drilling screw
- (8) Aluminium-blind rivet
- 9 Extruded base section 44026
- 10 Extruded window connecting section 38 464
- 11 Reveal

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Window Sill (Section 4-4) Scale 1:2





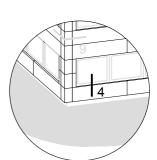


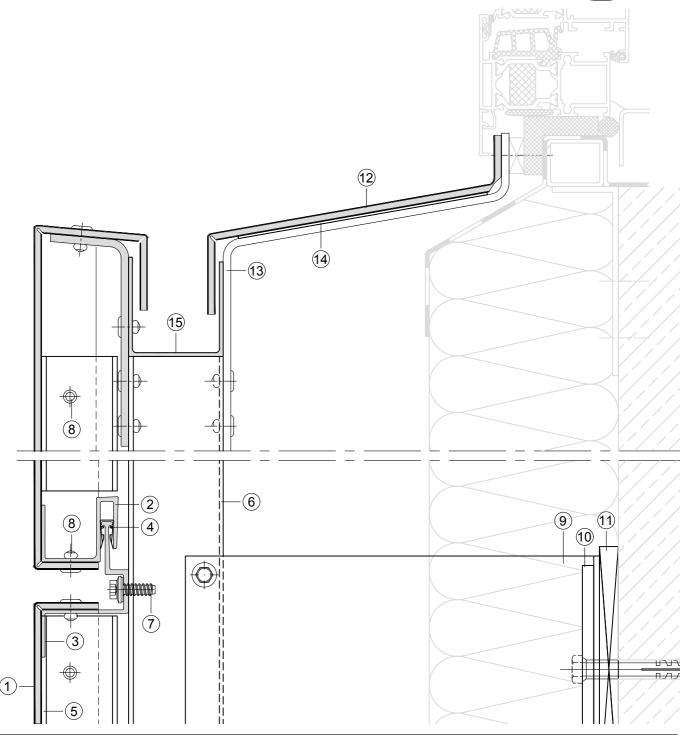
- 1 ALUCOBOND
- 2 Extruded S-Section 44024
- ③ Extruded Z-Section 44025
- 4 Plastic clip SZ 20
- 5 Extruded U-Section 40/20/2,5
- 6 Extruded hat section 35 953
- Self-tapping screw or self drilling screw
- 8 Aluminium-blind rivet

- Wall bracket
- 10 Extruded Al-liner
- (1) Plastic board (thermal separation)
- (12) Window sill-shaped aluminium sheet
- (3) Side folding (window sill)
- (4) Folded Al-sheet (water drainage)
- (5) Fixing angle (Support for window sill)
- (6) Extruded window connecting section 38 464

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Window Sill (Section 4-4 Central Sector) Scale 1:2





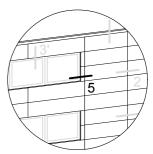
- 1 ALUCOBOND
- 2 Extruded S-Section 44024
- ③ Extruded Z-Section 44025
- 4 Plastic clip SZ 20
- 5 Extruded U-Section 40/20/2,5
- 6 Extruded hat section 35 953
- 7 Self-tapping screw or self drilling screw
- 8 Aluminium-blind rivet

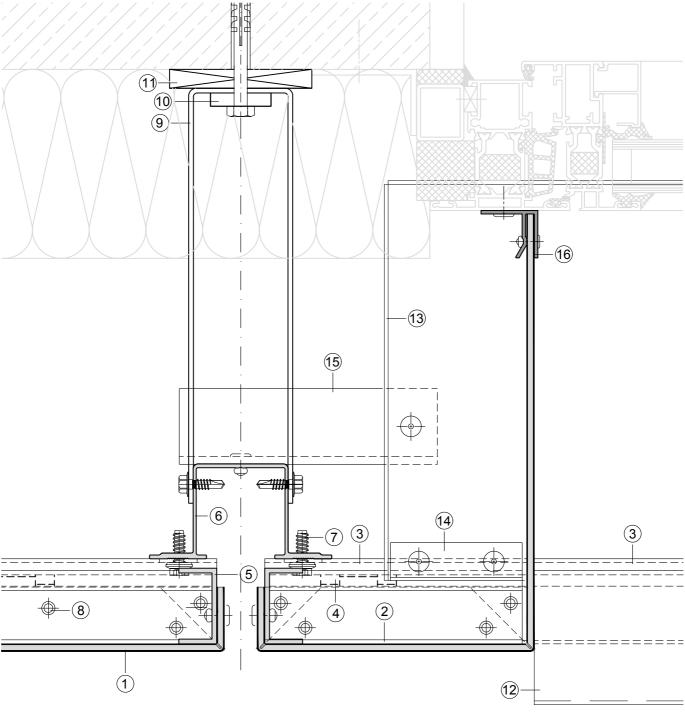
- Wall bracket
- 10 Extruded Al-liner
- 11) Plastic board (thermal separation)
- (2) ALUCOBOND Window sill
- (3) Fixing angle (Support for window sill)
- (4) Sealing tape
- (5) Extruded U-section 50/50/2 (Water drainage)

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Window Jamb (Section 5-5) Scale 1:2

Vertical section see page 3.42





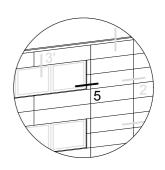
- 1 ALUCOBOND
- 2 Extruded S-Section 44024
- ③ Extruded Z-Section 44025
- 4 Plastic clip SZ 20
- 5 Extruded U-Section 40/20/2,5
- 6 Extruded hat section 35 953
- 7 Self-tapping screw or self drilling screw
- 8 Aluminium-blind rivet

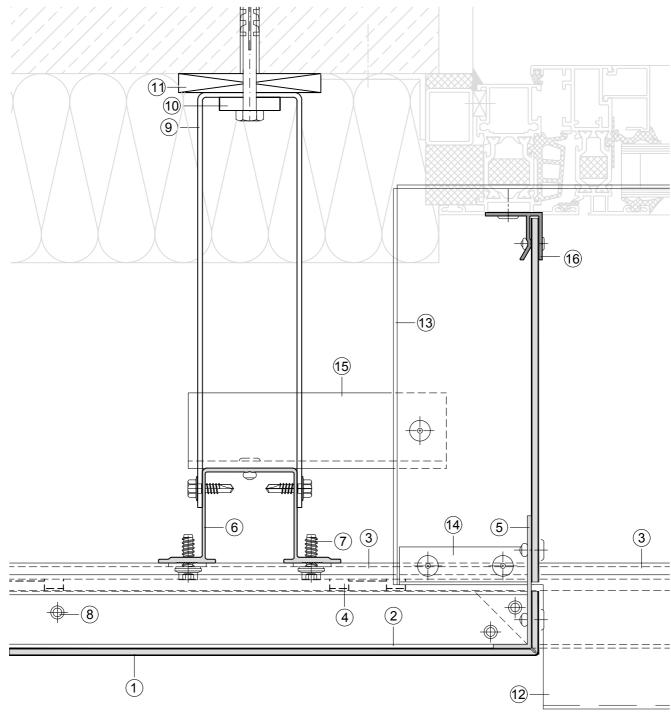
- Wall bracket
- 10 Extruded Al-liner
- 1 Plastic board (thermal separation)
- (2) Window sill-shaped aluminium sheet
- (3) Side folding (window sill)
- (4) Folded Al-sheet (water drainage)
- (5) Fixing angle (Support for window sill)
- (6) Extruded window connecting section 38 464

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Window Jamb (Section 5-5) Scale 1:2

Vertical section see page 3.42A





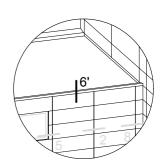
- 1 ALUCOBOND
- 2 Extruded S-Section 44024
- ③ Extruded Z-Section 44025
- 4 Plastic clip SZ 20
- ⑤ Extruded L-Section
- 6 Extruded hat section 35 953
- 7 Self-tapping screw or self drilling screw
- 8 Aluminium-blind rivet

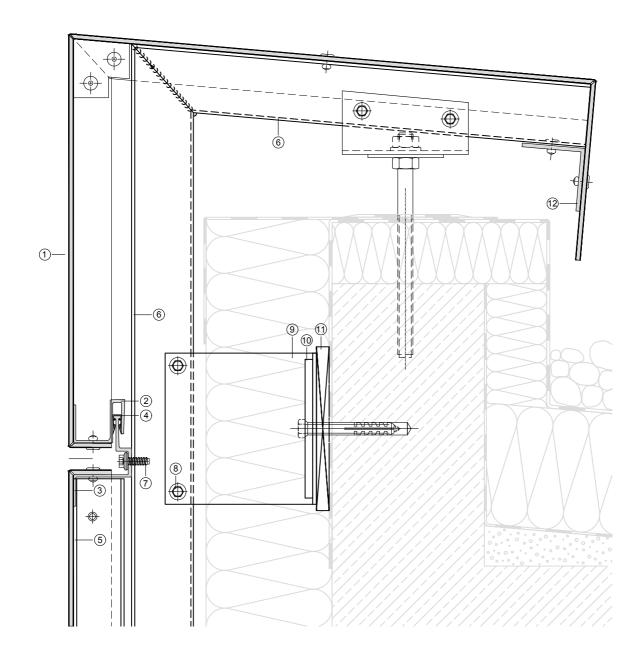
- Wall bracket
- 10 Extruded Al-liner
- (1) Plastic board (thermal separation)
- (2) Window sill-shaped aluminium sheet
- (3) Side folding (window sill)
- (4) Folded Al-sheet (water drainage)
- (5) Fixing angle (Support for window sill)
- (6) Extruded window connecting section 38 464

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Parapet Return (Section 6-6) Scale 1:3

Developed view of the corner segments see section 3.1





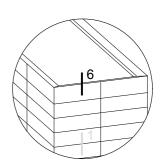
- 1 ALUCOBOND
- 2 Extruded S-Section 44024
- ③ Extruded Z-Section 44025
- 4 Plastic clip SZ 20
- (5) Extruded U-Section 40/20/2,5
- 6 Extruded hat section 35 953

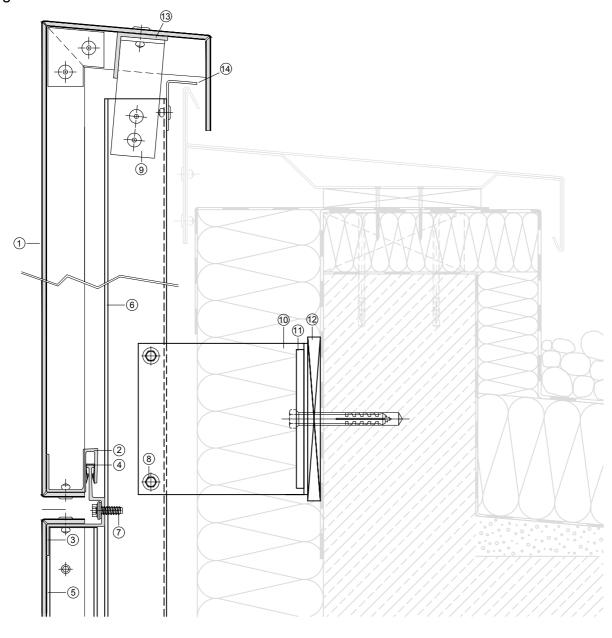
- Self-tapping screw or self drilling screw
- 8 Self drilling screw
- (9) Wall bracket
- (10) Extruded Al-liner
- 1 Plastic board (thermal separation)
- 12 Fixing angle

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Parapet Return (Section 6-6) Scale 1:3

Developed view of the corner segments see section 3.1



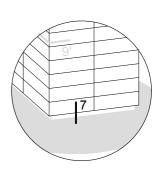


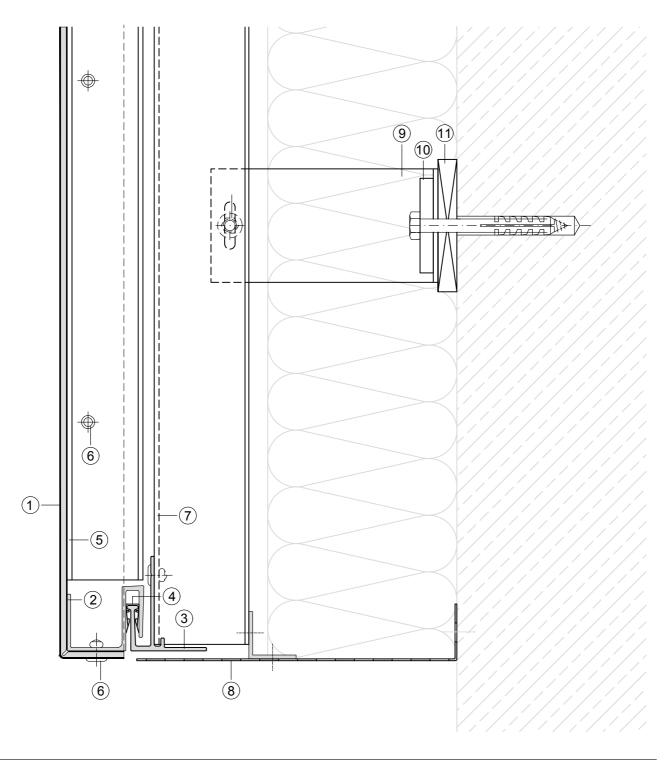
- 1 ALUCOBOND
- 2 Extruded S-Section 44024
- ③ Extruded Z-Section 44025
- 4 Plastic clip SZ 20
- 5 Extruded U-Section 40/20/2,5
- 6 Extruded hat section 35 953
- 7 Self-tapping screw or self drilling screw

- 8 Self drilling screw
- 9 Fixing angle
- (10) Wall bracket
- (1) Extruded Al-liner
- Plastic board (thermal separation)
- (13) Fixing angle
- (14) Drainage

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Lower Cladding End (Section 7-7) Scale 1:2



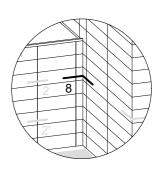


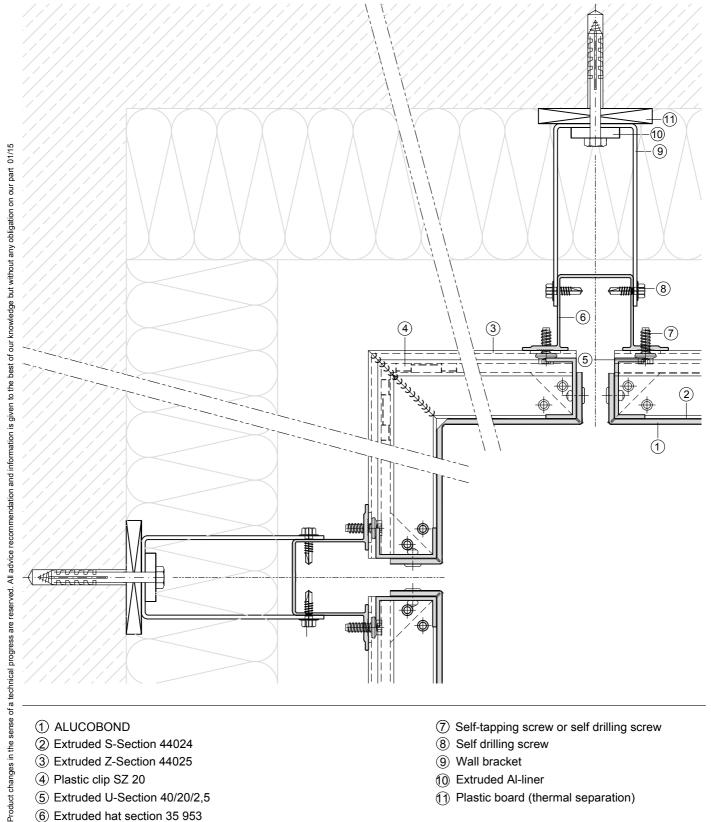
- 1 ALUCOBOND
- 2 Extruded S-Section 44024
- 3 Extruded base section 44026
- 4 Plastic clip SZ 20
- ⑤ Extruded U-Section 40/20/2,5
- 6 Aluminium-blind rivet

- 7 Extruded hat section 35 953
- 8 Ventilating section/perforated sheet
- Wall bracket
- 10 Extruded Al-liner
- 1 Plastic board (thermal separation)

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Corner Segment/Inner Corner (Section 8-8) Scale 1:3



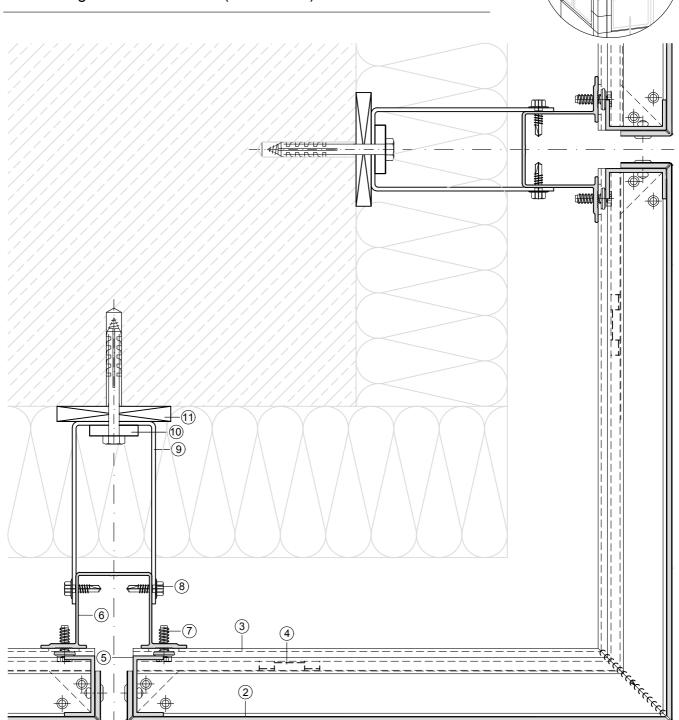


- 1 ALUCOBOND
- 2 Extruded S-Section 44024
- ③ Extruded Z-Section 44025
- 4 Plastic clip SZ 20
- (5) Extruded U-Section 40/20/2,5
- 6 Extruded hat section 35 953

- Self-tapping screw or self drilling screw
- 8 Self drilling screw
- (9) Wall bracket
- (10) Extruded Al-liner
- 1 Plastic board (thermal separation)

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Corner Segment/Outer Corner (Section 9-9) Scale 1:3



- 1 ALUCOBOND
- 2 Extruded S-Section 44024

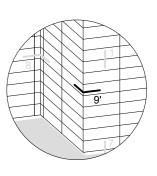
(1)

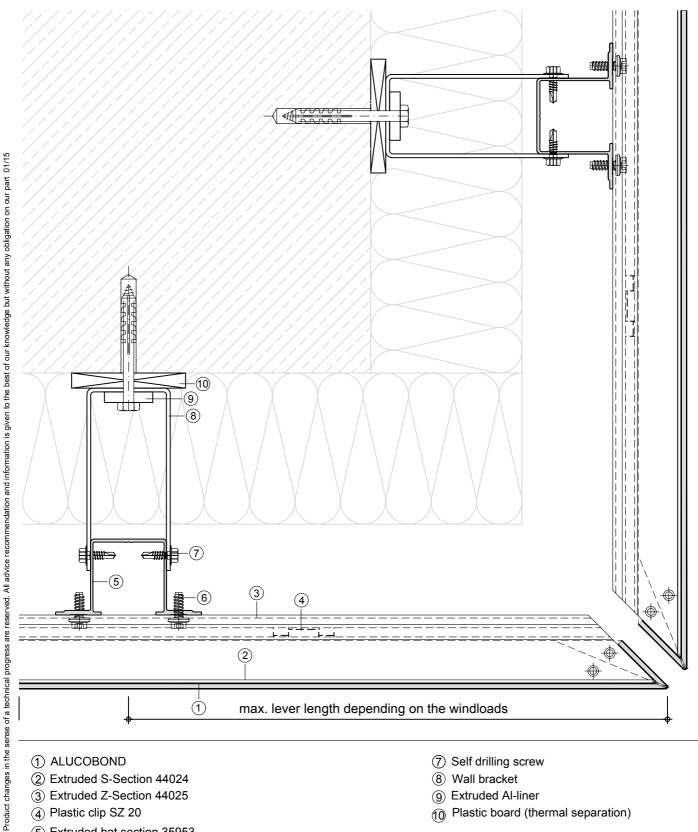
- ③ Extruded Z-Section 44025
- 4 Plastic clip SZ 20
- (5) Extruded U-Section 40/20/2,5
- 6 Extruded hat section 35 953

- Self-tapping screw or self drilling screw
- 8 Self drilling screw
- (9) Wall bracket
- (10) Extruded Al-liner
- 1 Plastic board (thermal separation)

Facade, Tray Panels SZ 20 - Horizontal Panel Layout

Corner Segment/Outer Corner (Section 9-9) Scale 1:3





- 1 ALUCOBOND
- 2 Extruded S-Section 44024
- 3 Extruded Z-Section 44025
- (4) Plastic clip SZ 20
- (5) Extruded hat section 35953
- 6 Self-tapping screw or self drilling screw

- 7 Self drilling screw
- (8) Wall bracket
- (9) Extruded Al-liner
- 10 Plastic board (thermal separation)