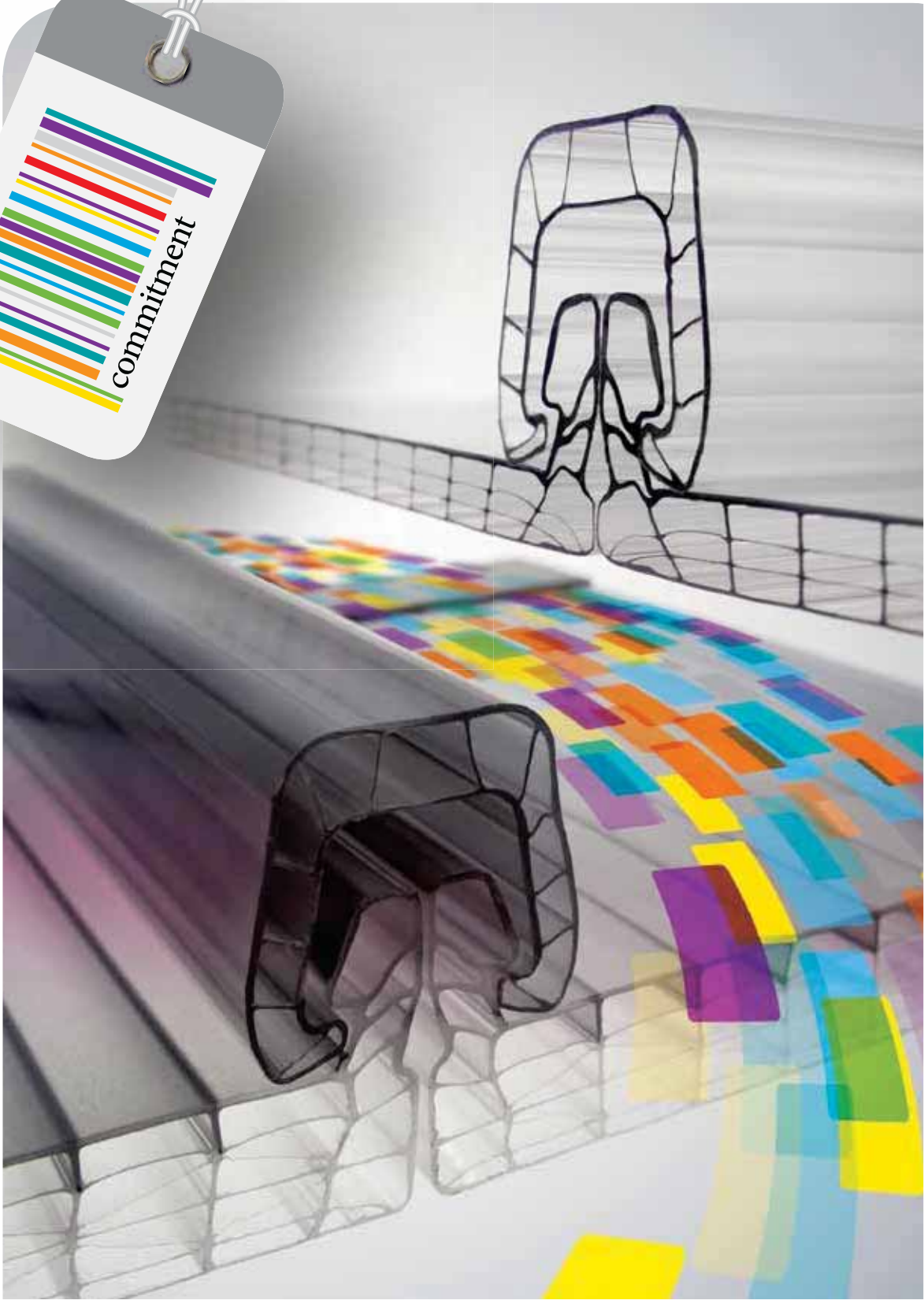


TOPGAL

Polycarbonate multi wall
standing seam system





Architecture



Decorative

TOPGAL Multi Wall Panel System

Topgal is a multi-wall standing seam system suitable for the roofing and coverage of many types of building. Topgal's unique multi-wall structure, with its relatively low weight, enables the optimum transmission of light into buildings and provides excellent insulation against heat loss.

Topgal polycarbonate panels are available in thicknesses of 8, 10, 16 and 20 mm, and in two standard panel widths – 600 mm and 1000 mm. The Topgal panel system includes all the necessary accessories for installation. The system is easy to assemble on-site and hundreds of square meters of coverage can be easily and quickly installed by a small team.

Topgal provides high structural strength and superior rigidity that exceeds the required standards, providing positive and negative wind-load resistance. Its standing-seam panel connections prevent water from collecting and penetrating, and strengthen the roof surface.

Topgal offers Architects and builders a wealth wide range of options for building coverage with excellent quality, uniformity and optimum light transmission. It is available in a choice of colors and with reflective coatings for reflection of solar rays. The panel can have 2 sides UV protection layers and high thermal insulation. Because the panels are resistant to radiation deterioration, they will look good and stay strong for many decades.

The Topgal system manufactured by the Plazit-Polygal group is ideal for installation in public buildings, sports facilities, transportation hubs, and the interior spaces of industrial, commercial and leisure buildings.

We offer professional and skilled staff to support designers and builders with any issues of architectural design, technical specification and installation.



Cladding, Parking Lot





Cladding, Commercial Center Interior





Cladding, Commercial Center





Roofing, Swimming Pool, Polyshade Blue





Roofing, Swimming Pool, Polyshade Silver





Roofing, Open Market Torquoise




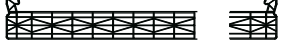




Canopy, Polyshade Silver



Product Specifications

Panel	Thickness (mm)	Width (mm)	Dead Load (kg/m ²)	U-Value (W/m ² • °C)	Minimum Radius for Cold Bending Arches (m)
	8	600	2.2	2.4	1.8
	10	600	2.5	2.1	2.0
	16	1000	3.3	1.8	3.2
	20	1000	3.5	1.5	4.0

- Dead Load is a weight of 1m² of Topgal system, includes installation accessories
- Standard Topgal panels can have UV protection on both sides or on tooth side, upon customer request

Colors and Optical Properties

Color	8mm, 10mm		16mm, 20mm	
	LT (%)	SHGC	LT (%)	SHGC
Clear	65	0.60	49	0.51
Bronze	30	0.50	20	0.39
Ice	20	0.36	20	0.32
Blue	30	0.59	20	0.43
Polychrome Silver	12	0.27	12	0.26

LT - Light Transmission in % according to ASTM D-1003, measured between ribs.

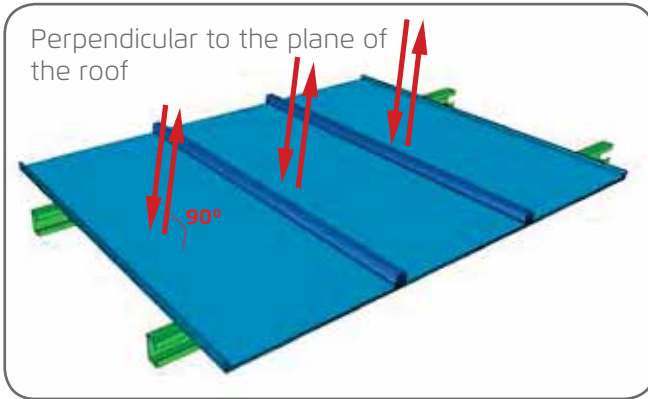
SHGC - Solar Heat Gain Coefficient measures how much heat from the sun is blocked. It takes into account all conduction, convection and radiation effects involved. The lower the SHGC, the more a product is blocking solar heat gain. Blocking solar heat gain is particularly important during the summer in hot climates.



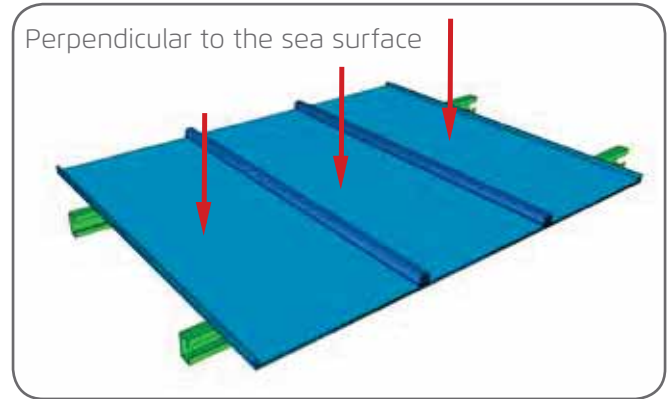
TOPGAL Load Bearing Capacity

“Topgal” coverings are highly resistant to the forces of nature wind load and snow load conditional upon correct structure design and panel installation.

Uplift Load - the force on a structure arising from the impact of wind on it.



Gravity Load - the live load due to the weight of snow on a roofs.



Recommended Span Between Purlins in Flat Structures (m)

Thick./Width	Direction	750Pa	1000Pa	1250Pa	1500Pa	1750Pa	2000Pa
8/600	Uplift load	1.2	1	0.85	0.7	0.6	0.5
	Gravity load	1.45	1.35	1.25	1.2	1.15	1.1
10/600	Uplift load	1.3	1.15	0.95	0.85	0.8	0.7
	Gravity load	1.5	1.45	1.4	1.3	1.25	1.2
16/1000	Uplift load	0.9	0.6	N/A	N/A	N/A	N/A
	Gravity load	1.55	1.5	1.45	1.4	1.35	1.3
20/1000	Uplift load	1.5	1.35	1.25	1.1	1.0	0.95
	Gravity load	1.65	1.6	1.55	1.5	1.45	1.4

Pa - Pascal. It is a measure of force per unit area, defined as one newton per square meter.

Allowed deflection of ≤ 50 mm.

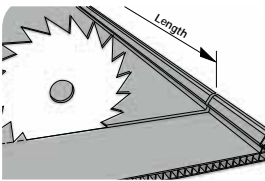
For more specific load calculation please contact Plazit-Polygal technical office:

techsupport@plazit-polygal.com

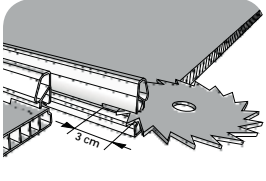




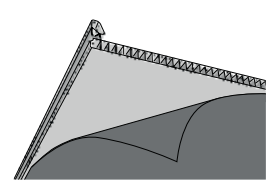
TOPGAL Installation Instructions



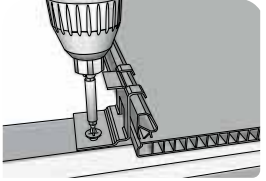
1. Cut the size



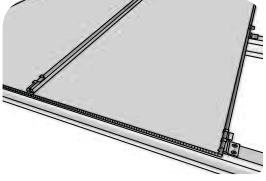
2. Slit for edge profile



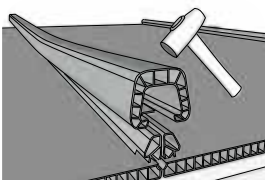
3. Remove inner film



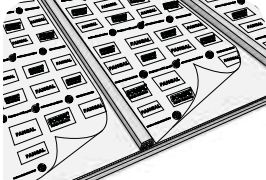
4. Install fastener



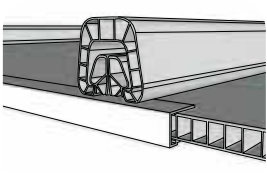
5. Place the next panel



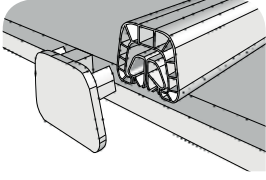
6. Install the connector



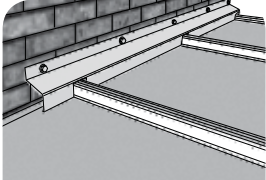
7. Remove the outer film



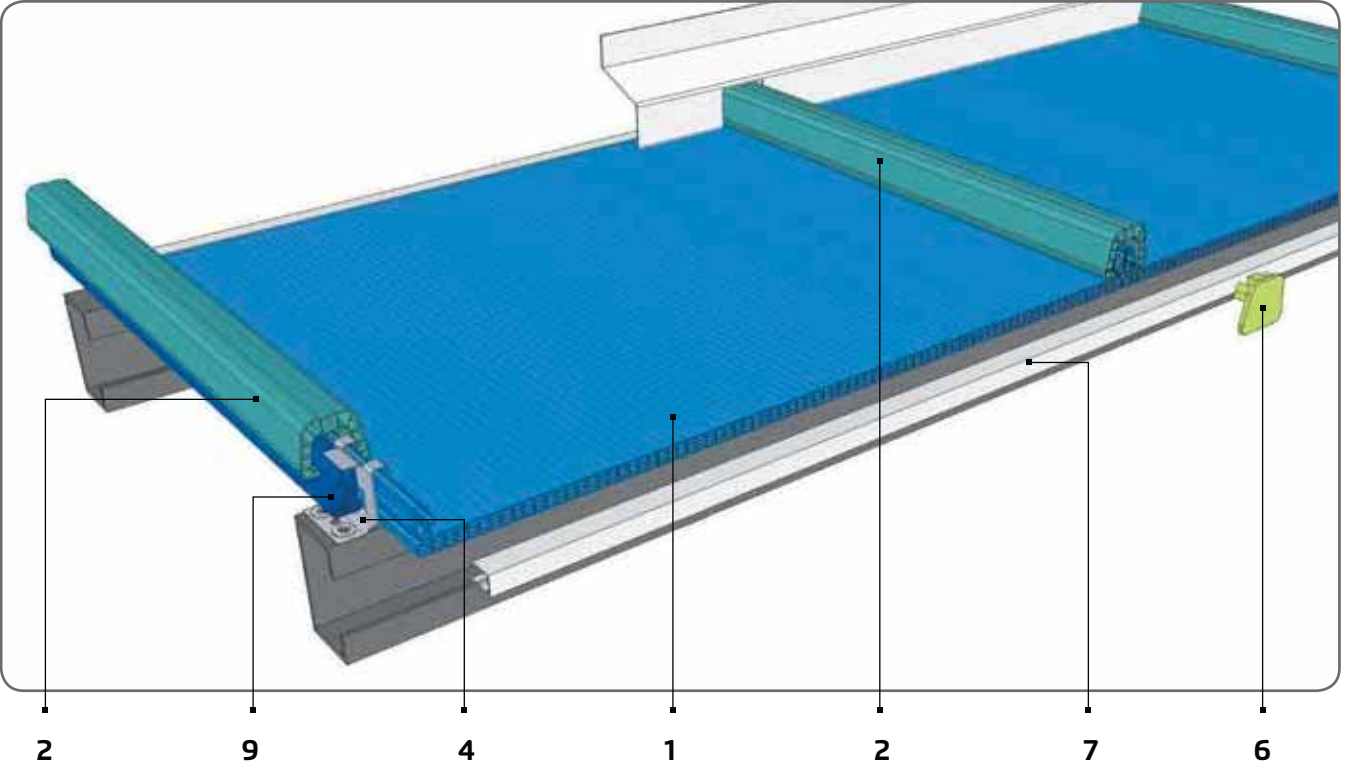
8. Install the edge profile



9. Install the end-caps









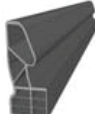







10. Complete installation

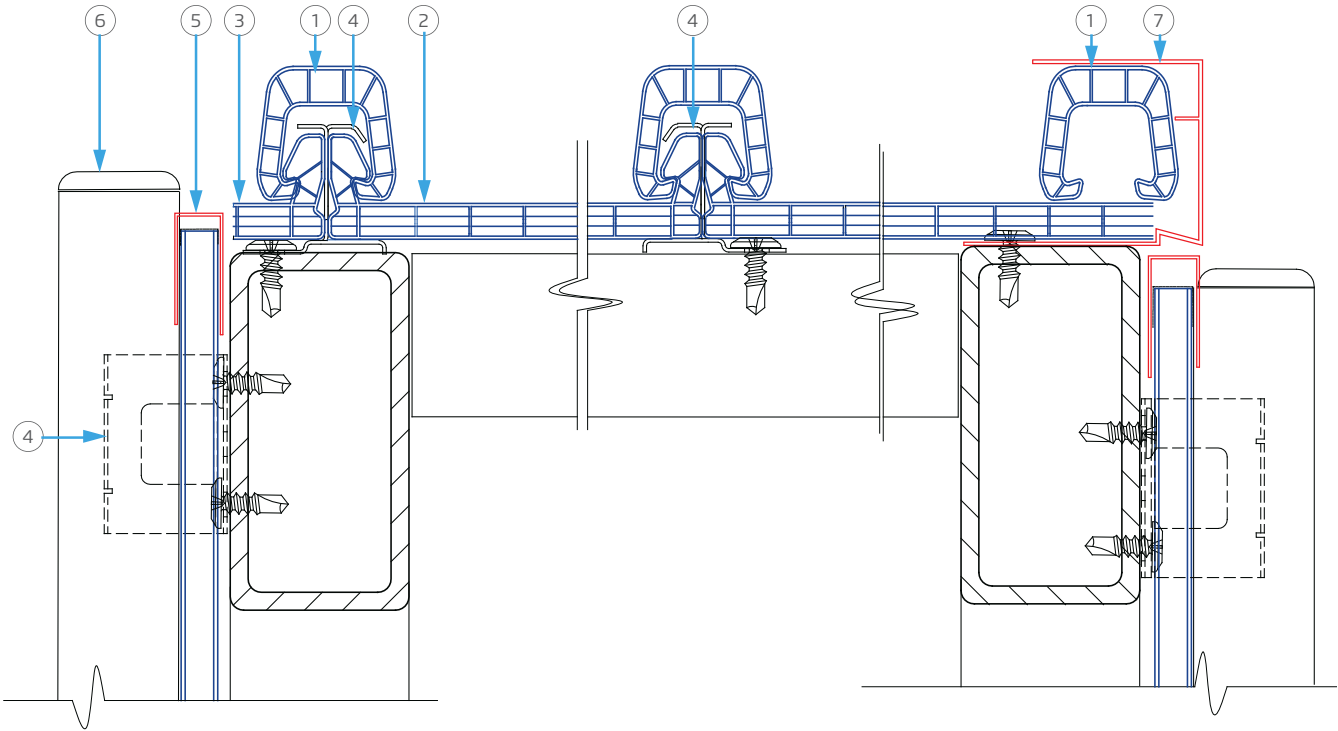


TOPGAL Installation Accessories

The panel system "Topgal" is fully equipped with all the necessary components for quality and reliable coverage. All component parts have passed a full cycle of tests for quality and compatibility with polycarbonate.

Item	Cat N°	Description
1 Topgal Panel 		Maximum panel length is 11.90m
2 PC Connector 	#240	Length 12m Color: panels matched
3 Aluminum Connector 	#360	Length 6m
4 Fastener 	#530 (8 mm panels) #531 (10 mm panels)	#532 (16 mm panels) #533 (20 mm panels) Stainless Steel
5 Stopper 	#550 (8 mm panels) #551 (10 mm panels)	#552 (16 mm panels) #553 (20 mm panels) Stainless Steel
6 Connector End Cap 	#525	Polycarbonate, Color: clear
7 Aluminum Edge Profile 	#311 (8 mm panels) #313 (16 mm panels)	#312 (10 mm panels) #328 (20 mm panels) Length 6m
8 Fastener Screw 	#431 (for metal structures)	Philips self drilling #10 / 5/8"
	#436 (for wood structures)	Philips #10 / 1"
9 PC Side Profile 	#241 (8 mm panels) #243 (16 mm panels)	#242 (10 mm panels) #244 (20 mm panels) Color: panels matched
10 Anti Dust Tape 	#508 (8-10 mm panels) #509 (16 mm panels) #510 (20 mm panels)	Roll length 33m
11 Aluminum Side Profile 	#361	Length 6m
12 Aluminum Frame Profile 	#364 (16 mm panels)	Length 6m
13 Aluminum Rafter Profile 	#366 (8 mm panels)	Length 6m
14 Gap sealing foamed PE 	#527 (8-10 mm panels)	Length 1802 mm
	#526 (16-20 mm panels)	Length 2000 mm

TOPGAL Connection Details



Panels Connection with PC Connector

- **1** Panel PC connector (#240)

- **2** Polycarbonate panel

- **3** PC side profile

- **4** Panels fastener

- **5** Aluminum edge profile

- **6** Connector end cup (#525)

- **7** Aluminum frame profile

End Side Connection

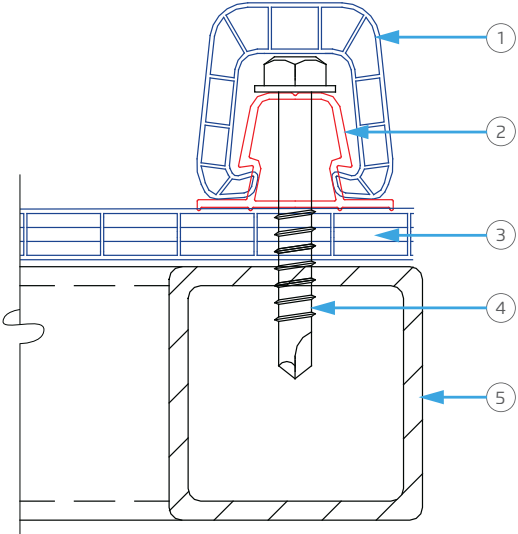
- **1** Panel PC connector (#240)

- **2** Aluminum side profile (#361)

- **3** Polycarbonate panel

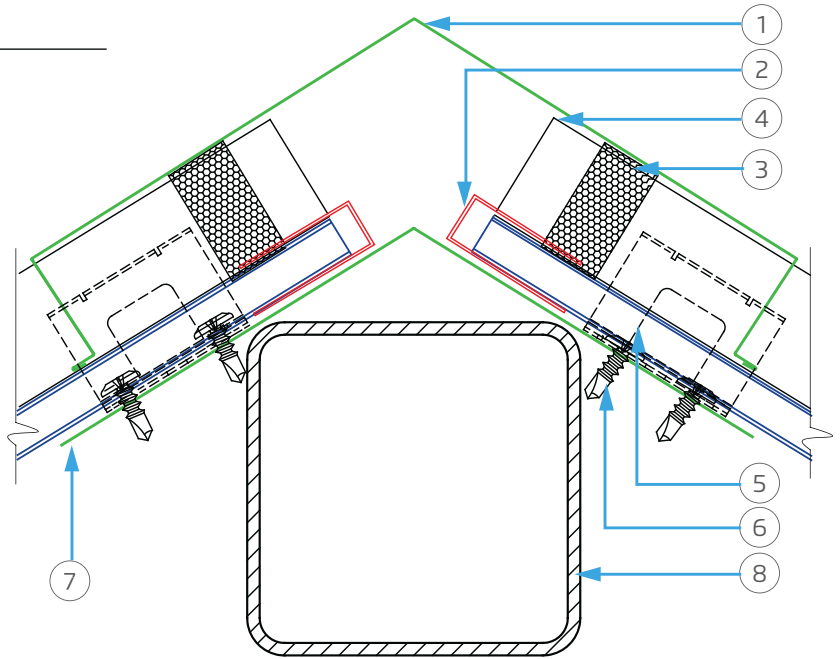
- **4** Self drilling screw

- **5** Structure element



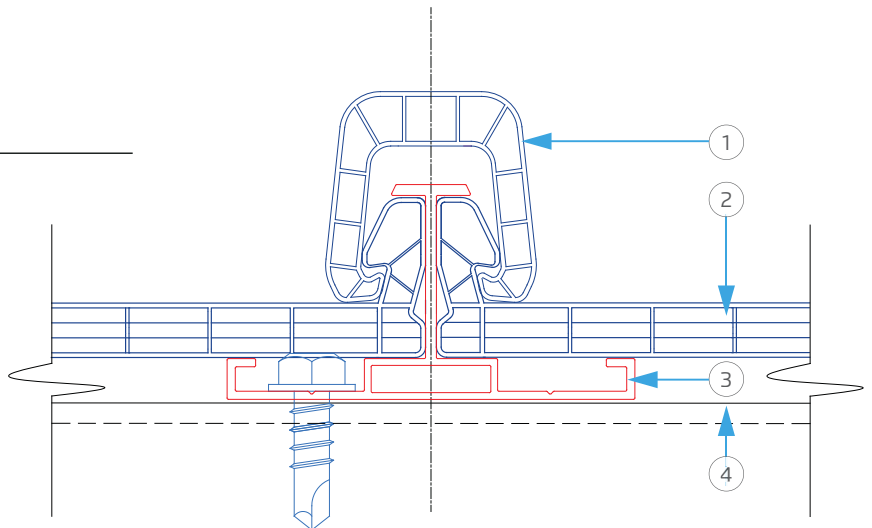
Ridge Detail with PC Connector

- **1** Bended still flashing
- **2** Aluminum edge profile
- **3** Gap sealing foam PE
- **4** Pannel PC connector (#240)
- **5** Panels fastener
- **6** Fastener screw
- **7** Bended still flashing
- **8** Structure element (Ridge beam)



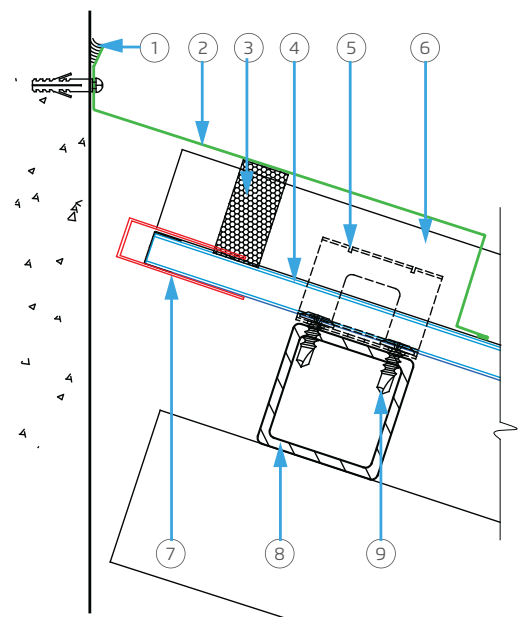
End Side Connection

- **1** Panel PC connector (#240)
- **2** Polycarbonate PC panel
- **3** Aluminum rafter profile
- **4** Structure element (Purlin)



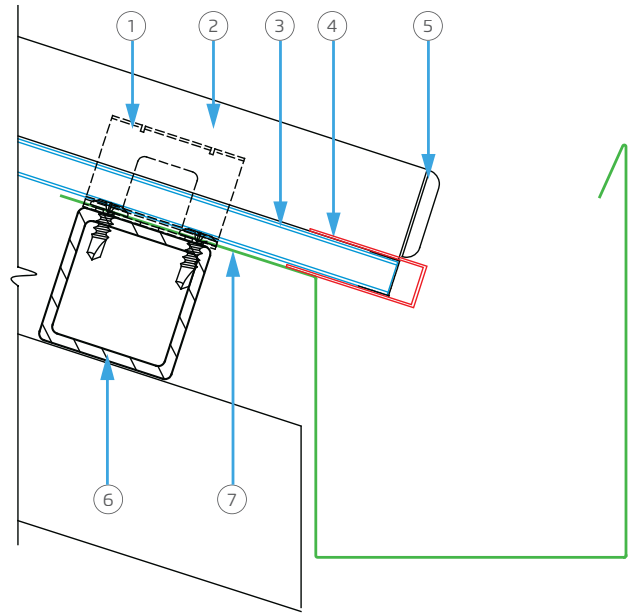
Roofing Detail - Upper Wall Connection

- **1** Sealing
- **2** Bended steel flashing
- **3** Gap sealing foam PE
- **4** Polycarbonate panel
- **5** Panels fastener
- **6** Panel PC connector (#240)
- **7** Aluminum edge profile
- **8** Structure element (Purlin)
- **9** Fastener screw



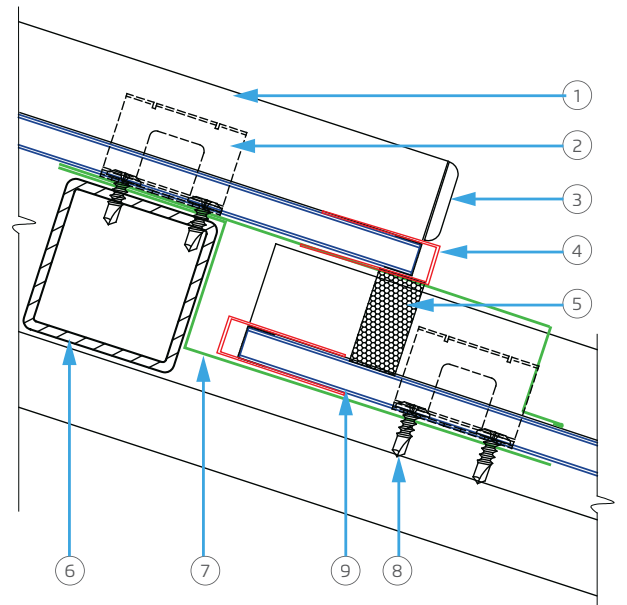
Roofing Detail - Gutter Connection

- **1** Panels fastener
- **2** Panel PC connector (#240)
- **3** Polycarbonate panel
- **4** Aluminum edge profile
- **5** Connector's end cup
- **6** Structure element (Purlin)
- **7** Gutter



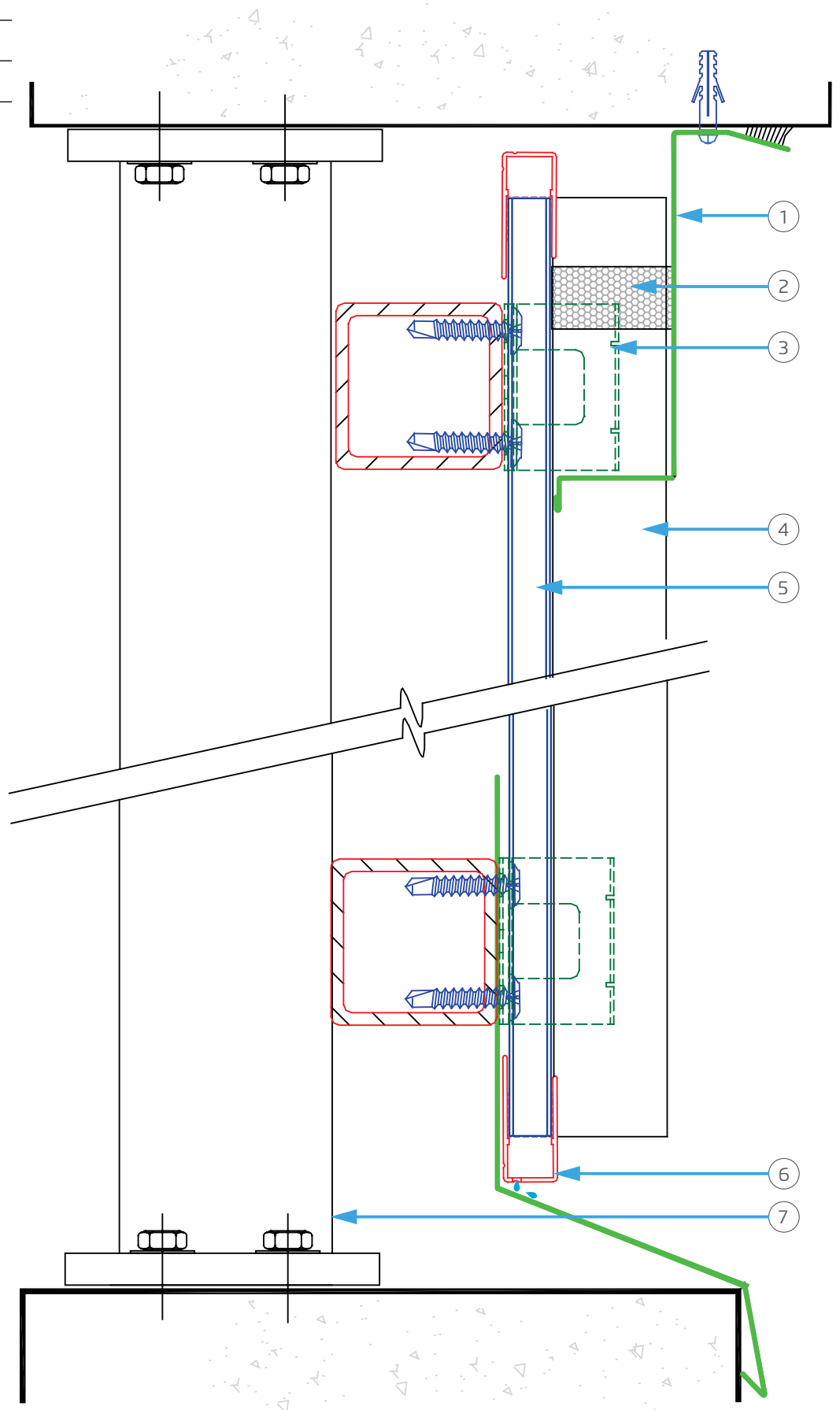
Roofing Detail - Overlap Connection

- **1** Panel PC connector (#240)
- **2** Panels fastener
- **3** Connector's end cup (#525)
- **4** Aluminum edge profile
- **5** Gap sealing foam PE
- **6** Supporting structure
- **7** Bended still flashing
- **8** Fastener screw
- **9** Polycarbonate panel



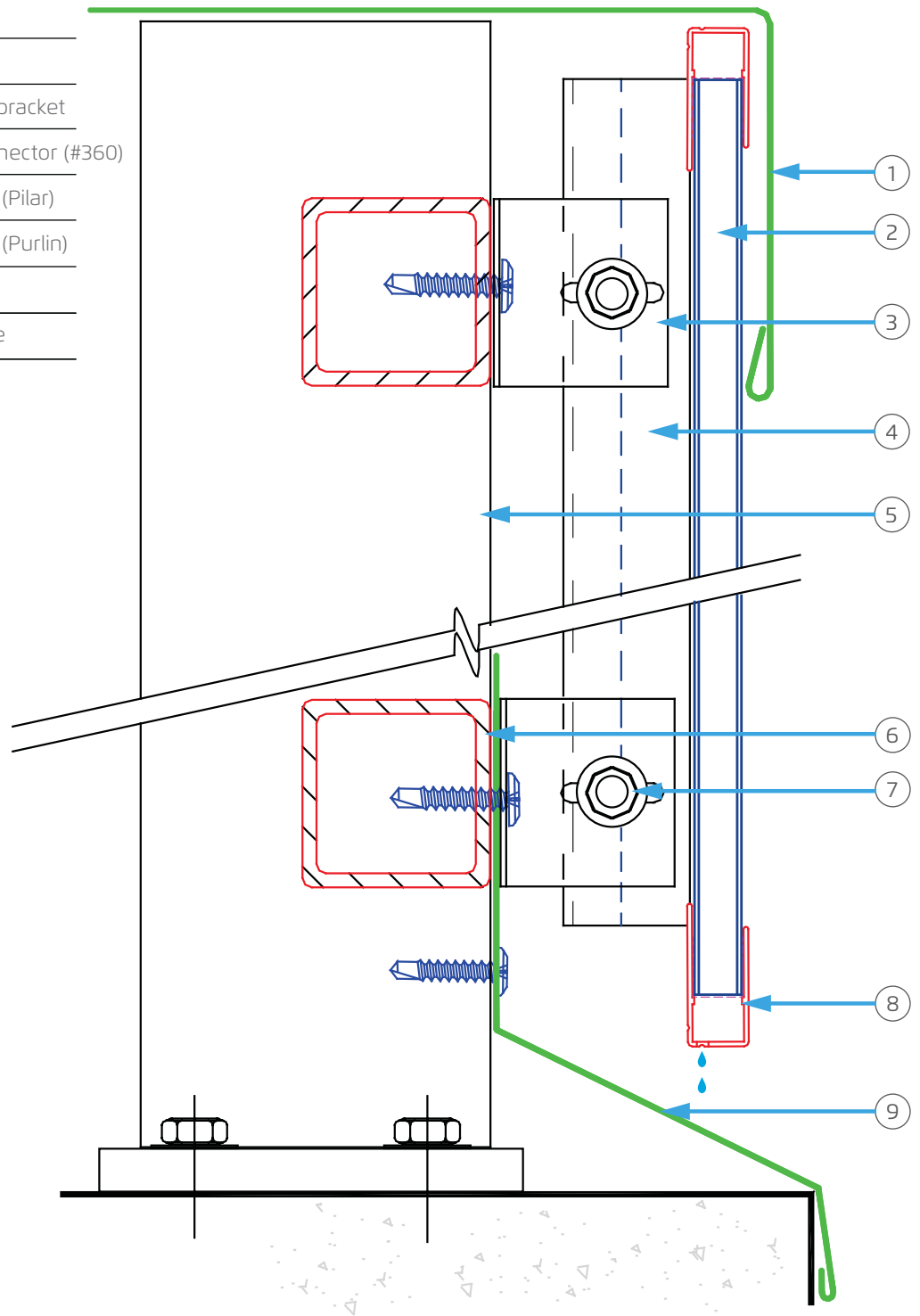
VERTICAL CLADDING PANELS CONNECTION WITH PC CONNECTOR

- 1** BENDED STEEL FLASHING
- 2** GAP SEALING FOAM PE
- 3** PANELS FASTENER
- 4** PANELS PC CONNECTOR (#240)
- 5** POLYCARBONATE PANEL
- 6** EDGE ALUMINUM PROFILE
- 7** CONSTRUCTION ELEMENT (PILLAR)



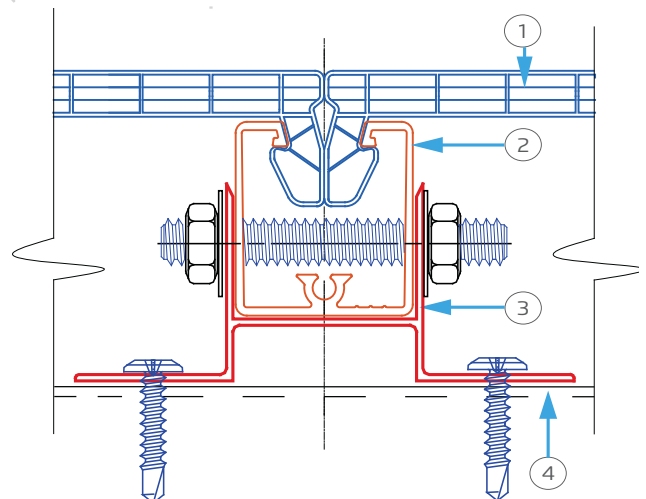
Vertical Cladding Panels Connection with Aluminum Connector

- 1 Bended steel flashing
- 2 Polycarbonate panel
- 3 Aluminum connector bracket
- 4 Panels aluminum connector (#360)
- 5 Construction element (Pilar)
- 6 Construction element (Purlin)
- 7 Brackets nut
- 8 Edge aluminum profile
- 9 Bended steel flashing



Panels connection with aluminum connector

- 1 Polycarbonate panel
- 2 Panel aluminum connector (#360)
- 3 Aluminum connector bracket
- 4 Structure element (Purlin)



About **Plazit-Polygal**

The Plazit Polygal Group is one of the leading international specialist manufacturers of thermoplastic sheets for various applications. Our company is respected worldwide for its innovative and high quality products and expert technical support. Our production facilities are located in Israel, USA, Chile, Bulgaria, Russia and Spain, enabling our clients to source our products close to their locations around the globe.

Both Plazit & Polygal started to manufacture extruded plastic sheets in 1973 – a landmark year for the international plastics industry. Polygal became few years later a pioneer in the production of polycarbonate multi wall sheets. From modest beginnings, both companies have grown and become world leaders in the plastic sheeting market.

Plazit and Polygal merged their operations in 2011, and the Plazit Polygal Group continues to develop its products, production facilities, human resources and market presence. We are committed to meeting the needs of our customers and guaranteeing high quality, flexibility and swift response – these commitments are the key to all our activities.

Plazit Polygal Group facilities are certified according to ISO 9001, ISO 14001, CSTB (France), HACCP, ROHS, fire and health certifications, and other international engineering standards. Our in-house experts provide technical support and continuous product development to meet the evolving needs of our global client base.

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