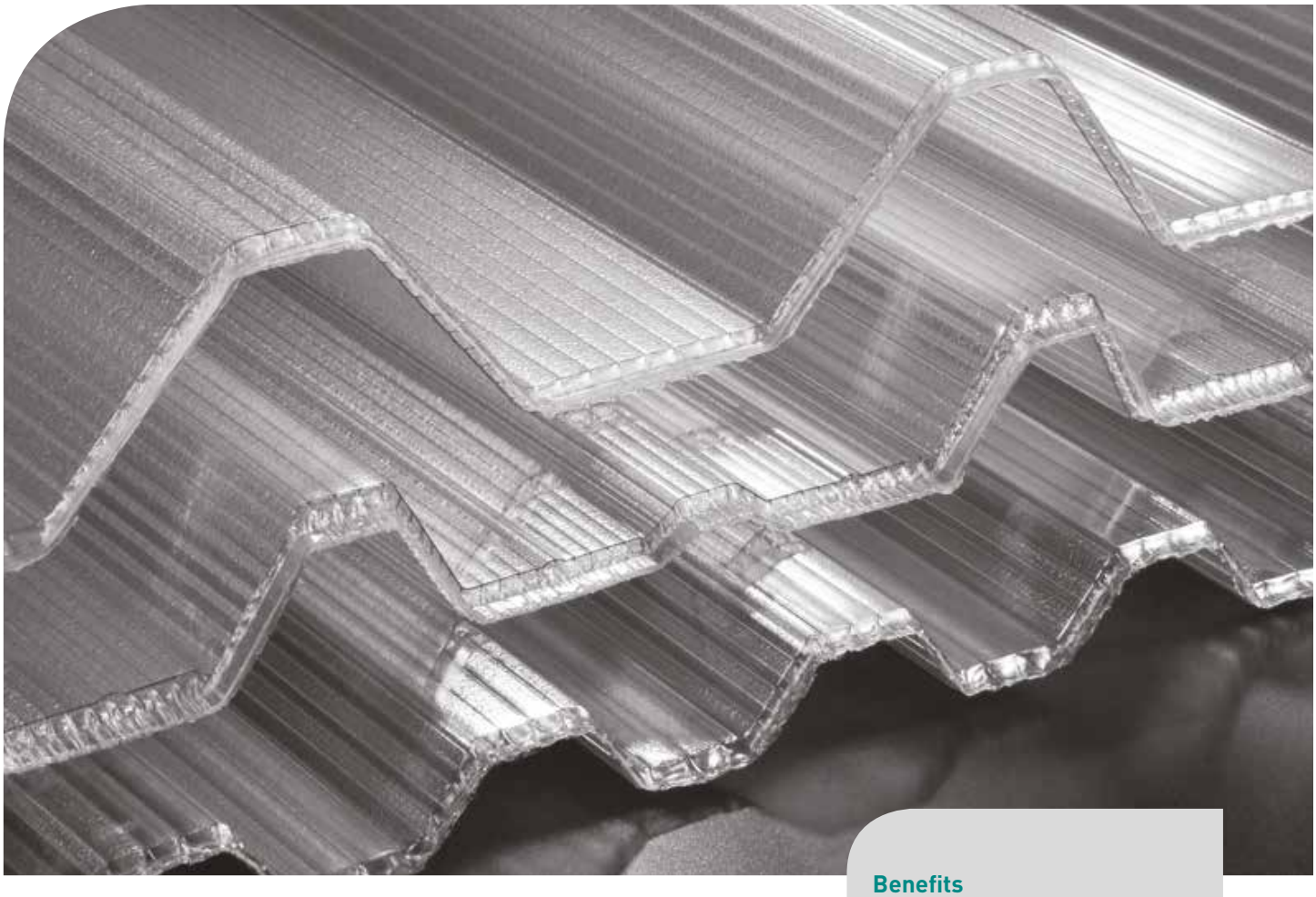
Grecatec®

CORRUGATED MULTIWALL PANELS



Grecatec®

2.5 6 10 12 16 25

Grecatec® panels are recommended for applications in combination with sandwich panels of the major manufacturers, where it is necessary to create daylighting. They are especially suitable in replacement or refurbishment of ridge/gutter roofing applications for the production of large surfaces. Most of the **Grecatec®** panels are available in flat version in different thicknesses. The product is supplied with thermowelded ends to reduce the condensation and the accumulation of dirt on the inside of the structure. It overlaps laterally and longitudinally, thus creating the possibility to realize lengths covering the whole slope. The range of optional accessories which completes **Grecatec®** installation making its use very easy and versatile.

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Benefits

- **Lightweight**
- **High thermal insulation**
- **Excellent impact resistance**
- **Good light transmission**
- **Good fire performance**
- **Certified quality warranty**
- **UV protection**

WARRANTY G10 10 YEARS

Main advantages of Grecatec® system

Impact resistance

Polycarbonate's mechanical properties make this the technopolymer with the highest impact resistance, allowing it to provide optimum protection against accidental damage and weather-related damage. These qualities mean polycarbonate significantly outperforms other materials (glass, acrylic, PET, etc.) commonly used in applications where transparency is a key requirement. Impact resistance remains constant across a particularly wide temperature range.

Thermal expansion

Thermal expansion is a characteristic property of materials that consists in their tendency to change in size as temperature increases and decreases. This expansion is quantified via a coefficient that, in the case of polycarbonate, equates to $6{,}5x10^{-5}$ 1/K (0.065 mm/m°C). The fact that this coefficient value is much higher than the values associated with materials usually used for roofing and joinery (aluminium, steel, etc.) generates the need for solutions that compensate for this difference in thermal expansion, which thus needs to be factored in at the design stage and in all building applications.

Light transmission

Proper lighting design entails ensuring that the building interior receives the required amount of light. So it is clearly important to use sheets that let enough light through. The **Grecatec®** product range gives you plenty of choice at the design stage of your project, with an array of colour options to meet your every need.

Warranty

Sheets with UV protection offer a 10-year warranty against yellowing, loss of light transmission and hail damage. Our sales department will be happy to provide you the exact warranty terms.

Fire behaviour

Fire safety is a fundamental necessity. **Grecatec®** panels are tested in independent qualified laboratories on the basis of current applicable regulations in the construction industry. Our offices are at your disposal to provide you with details regarding the available certificates.

Thermal transmittance

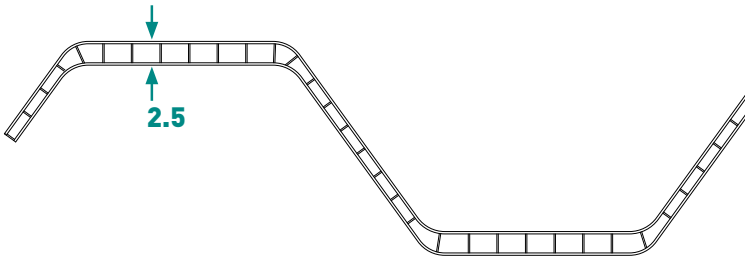
Thermal transmittance, or U-value, is the mean flow of heat per m^2 that passes through a structure (the polycarbonate panel) separating two environments with different temperatures (usually separating a heated or air-conditioned room from outdoors). The lower this value, the more effective the insulation offered by the panel. With a view to reducing heating/air-conditioning costs - with a consequent reduction in harmful emissions into the atmosphere - international standards require both building materials and fenestration systems to meet ever-stricter thermal transmittance requirements. With its extensive range of multiwall panels, **Stabilit Suisse** is at the cutting edge when it comes to providing its customers with the most appropriate solutions in compliance with current standards.

UV protection

Our co-extruded UV-protected layer blocks damaging UV rays that would lead to rapid degradation that causes yellowing and undermines the strength of the exposed surface. UV protection is applied using co-extrusion technology, whereby an even shielding layer can be produced to screen the polycarbonate from the UV component of the solar radiation. With this technology, the UV protection is made resistant to weathering and is not prone to damage by incorrect maintenance.

Grecatec® 2W 2.5 mm

Grecatec® 2W 2.5 mm is available in different shapes with micro-Multiwall structure of 2.5 mm thick. Full-light roofing, even combined with other products of identical shapes, can be realized. This product can be supplied with heat-sealed ends. **Grecatec® 2W 2.5 mm** is UV protected in coextrusion.



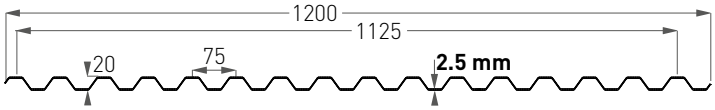
Thickness (mm) **2.5**

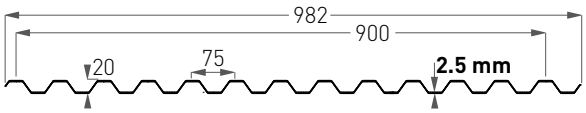
Grecatec® 2W 2.5 mm technical data			
Thickness	2.5 mm		
Number of walls	2		
Trapez pitch	depending on the shape		
Height	depending on the shape		
Width	Compatible with **GRECOR**: 1200 mm (usable width 1125 mm) Compatible with **GRECOR**: 982 mm (usable width 900 mm) Compatible with **ALUBEL 28**: 1014 mm (usable width 896 mm) Compatible with **ISOLPACK DELTA 5A**: 1034 mm (usable width 1000 mm) Compatible with **Italpannelli PENTA**: 1036 mm (usable width 1000 mm)		
Length	upon request (maximum recommended length 6 m)		
Thermal transmittance	4,5 W/m^2 K		
Colours		**LT***	**G Value**
	Clear (8005)	79%	-
	Opal (8121)	70%	-
UV protection	Coextruded on the external side		
Warranty	10-years warranty against hail damage, yellowing, loss of light transmission		
Service temperature	-40°C / +120°C		
Thermal expansion coefficient	0,065 mm/m°C (6,5 x 10^{-5} 1/K)		
Fire certification	EUROCLASS B s1 d0		

*** Values calculated according to ASTM standard.**

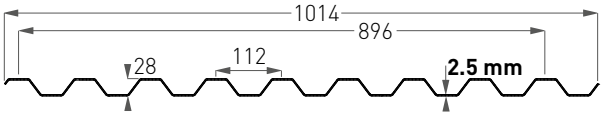
Grecatec® 2W 2.5 mm

- **Grecatec 75/20/2.5 mm compatible with Grecor 20/52**

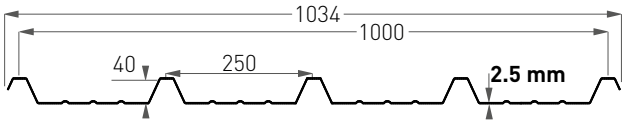




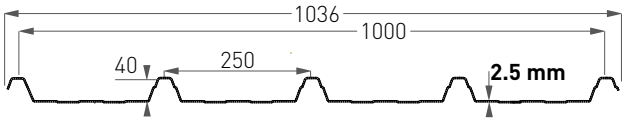
- **Grecatec 112/28/2.5 mm compatible with Alubel 28**



- **Grecatec 250/40/2.5 mm compatible with Isolpack Delta 5A**

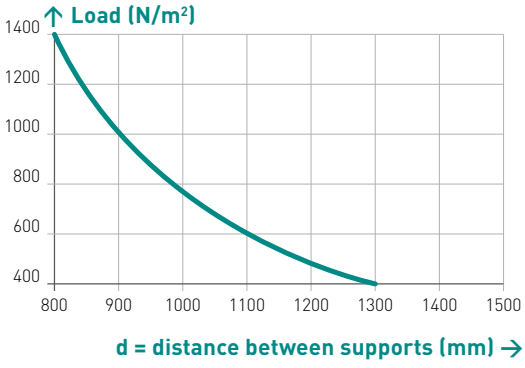


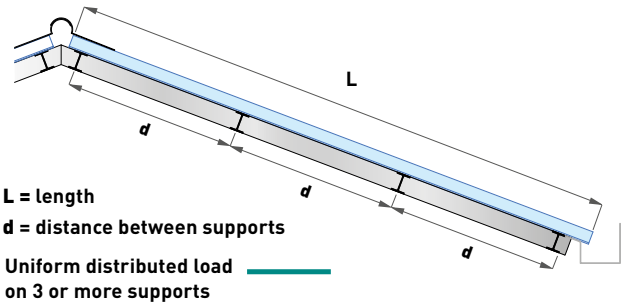
- **Grecatec 250/40/2.5 mm compatible with Italpannelli PENTA**



Grecatec® 2W 2.5 mm load charts

- **Load charts with 3 or more supports for FLAT solution**





Grecatec® 2W 2.5 mm specifications

Construction of a flat translucent roof and / or skylight consisting of:

Grecatec® 2W 2.5 mm multiwall polycarbonate panel, co-extruded UV-protection on the external side, 2 walls structure, 2.5 mm thickness, trapez height ... mm, thermal transmittance 4.5 W/m² K, clear or opal colours, thermowelded ends; dimensions: width ... (useable width ... mm), length upon request; 10-year warranty.

Spacer in PE foam to be positioned between Grecatec panel and support.

Grecatec® 112/28/6 mm

Grecatec® 112/28/6 mm is a corrugated multiwall panel designed for use in combination with sandwich panels and corrugated metal profiles, where it is necessary to create a single or continuous transparent roof. It can be used in new builds and / or restructured roofing, installing the panels from the ridge to the gutter or in the centre of the slope thanks to the perfect match on all 4 sides (only with metal corrugated sheets with the same shape).

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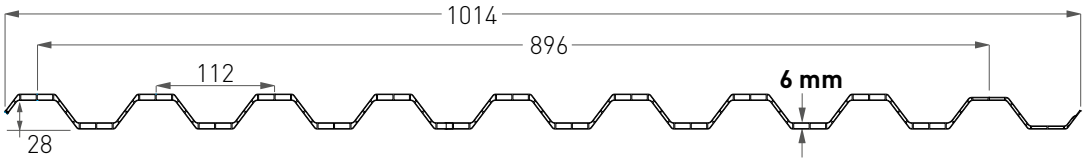
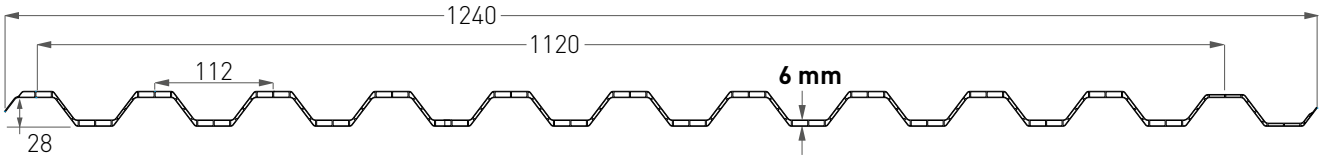
Thickness (mm) **6**

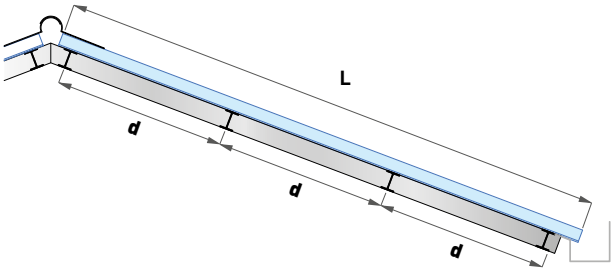




Grecatec® 112/28/6 mm technical data			
Thickness	6 mm		
Number of walls	2		
Trapez pitch	112 mm		
Height	28 mm		
Width	9 trapez: 1014 mm (usable width 896 mm) 11 trapez: 1240 mm (usable width 1120 mm)		
Length	upon request (maximum recommended length 6 m)		
Thermal transmittance	3,5 W/m² K		
Colours		**LT***	**G Value**
	Clear (8005)	80%	-
	Opal (8121)	43%	-
UV protection	Coextruded on the external side		
Warranty	10-years warranty against hail damage, yellowing, loss of light transmission		
Service temperature	-40°C / +120°C		
Thermal expansion coefficient	0,065 mm/m°C (6,5 x 10^{-5} 1/K)		
Fire certification	EUROCLASS B s1 d0		

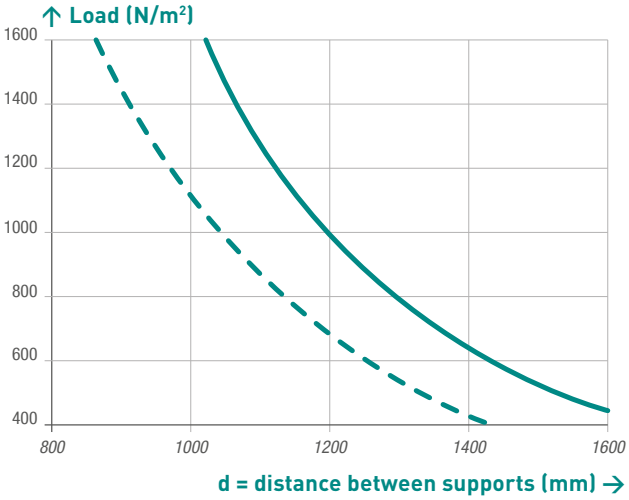
*** Values calculated according to ASTM standard.**

Grecatec® 112/28/6 mm load charts



L = length
d = distance between supports

• Load charts for FLAT application



Uniform distributed load on 2 supports

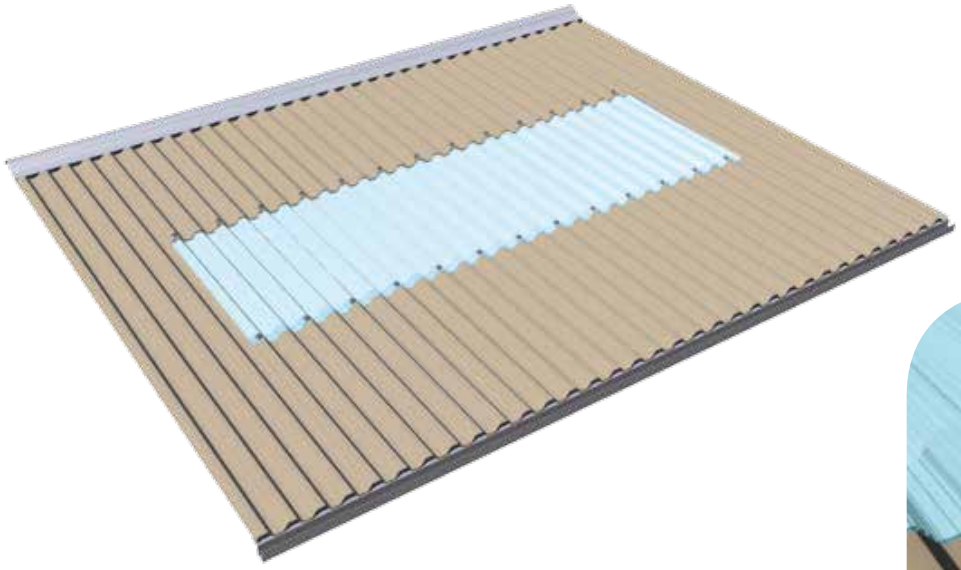
Uniform distributed load on 3 or more supports

NOTE
minimum recommended slope 5%.

The load tables refer to the breakage load value of the system, i.e. the lowest value between: the collapse of the panel, failure of the frame or the panel springing out of its housing. The designer will check the actual loads acting on the system as well as the coefficients of amplification and safety to be applied in consideration of both the climatic conditions of the site, both the general and particular characteristics of the structure in which the polycarbonate is inserted. For these evaluations, refer to the specific regulations in force in each country. For detailed technical data, or for more information, refer to the Technical Manual or to the Stabilit Suisse Office.

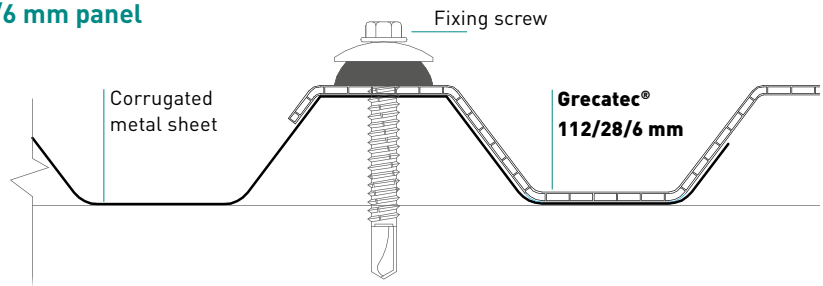
Voci di capitolato Grecatec® 112/28/6 mm
Construction of a flat translucent roof and / or skylight with Grecatec® 112 /28/6 mm system consisting of:
Grecatec® 112/28/6 mm multiwall polycarbonate panel, co-extruded UV-protection on the external side, 2 walls structure, 6 mm thickness, trapez height 28 mm, thermal transmittance 3,5 W/m² K, clear or opal colours, thermowelded ends; dimensions: width 1014 mm or 1240 mm (useable width 896 mm or 1120 mm), length upon request; 10-year warranty.

SINGLE / CONTINUOUS FLAT installation solution - Grecatec® 112/28/6 mm

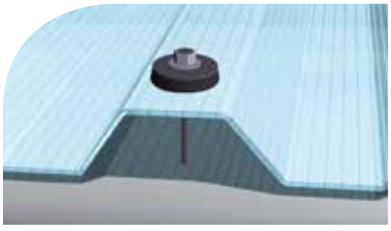


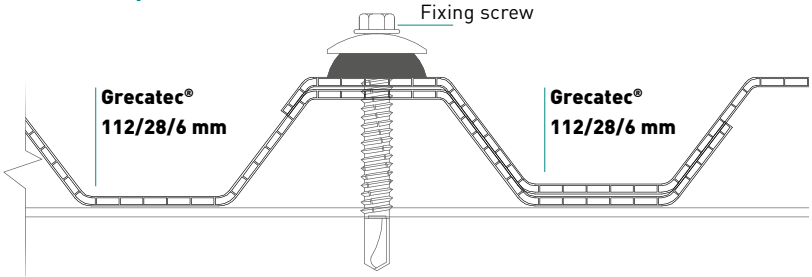
- **Detail of Grecatec® 112/28/6 mm fixing and side overlap**

Corrugated metal sheet - Grecatec® 112/28/6 mm panel



Grecatec® 112/28/6 mm panel - Grecatec® 112/28/6 mm panel





Grecatec® 250/40/10 mm

Grecatec® 250/40/10 mm is a corrugated multiwall panel, designed to be used for roofs and vertical walls in industrial buildings. It is used both in continuous roofing and single skylights (flat and curved) in combination with sandwich panels and corrugated metal profiles in both sheds and vertical curtain walls. The panel can be supplied with UV-resistant transparent coextruded gasket to increase the performance of air and water resistance.

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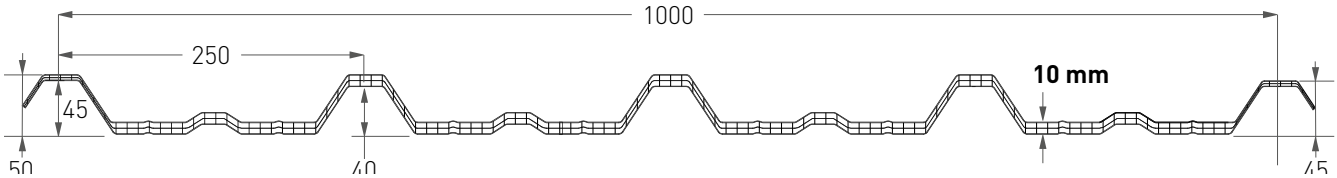
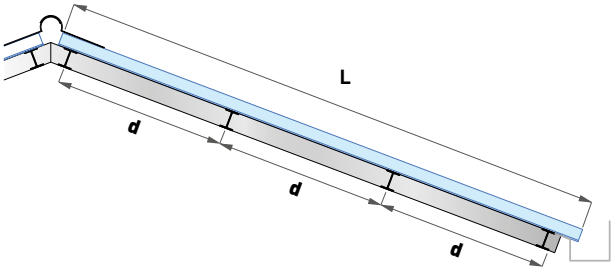
Thickness (mm) **10**



Grecatec® 250/40 10 mm technical data			
Thickness	10 mm		
Number of walls	3		
Trapez pitch	250 mm		
Height	40 mm		
Width	1000 mm		
Length	upon request (maximum recommended length 6 m)		
Thermal transmittance	2,8 W/m² K		
Colours		**LT***	**G Value**
	Clear (8005)	72%	-
	Opal (8121)	55%	-
UV protection	Coextruded on the external side		
Warranty	10-year warranty against hail damage, yellowing, loss of light transmission		
Service temperature	-40°C / +120°C		
Thermal expansion coefficient	0,065 mm/m°C (6,5 x 10^{-5} 1/K)		
Fire certification	EUROCLASS B s1 d0		

*** Values calculated according to ASTM standard.**

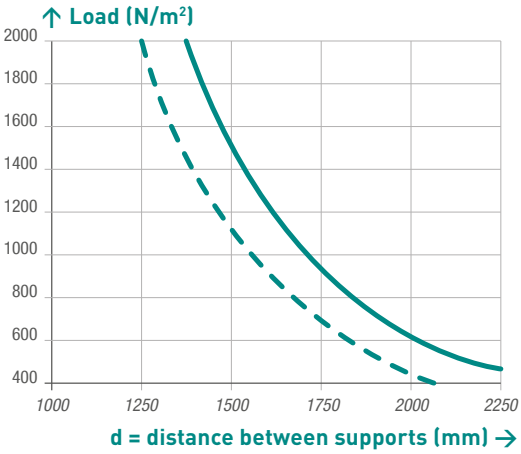
Grecatec® 250/40 10 mm load charts



L = length
d = distance between supports

Load chart with 3 or more supports for FLAT solution

• Skylight

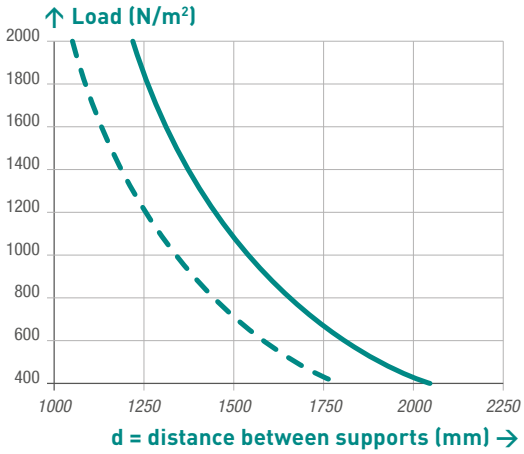


Deflection 1/50 - distance between supports

Maximum deflection limit 50 mm

NOTE
minimum recommended slope 5%.

• Continuous application



The load tables refer to the breakage load value of the system, i.e. the lowest value between: the collapse of the panel, failure of the frame or the panel springing out of its housing. The designer will check the actual loads acting on the system as well as the coefficients of amplification and safety to be applied in consideration of both the climatic conditions of the site, both the general and particular characteristics of the structure in which the polycarbonate is inserted. For these evaluations, refer to the specific regulations in force in each country. For detailed technical data, or for more information, refer to the Technical Manual or to the Stabilit Suisse Office.

Grecatec® 250/40/10 mm specifications
Construction of a flat translucent roof and / or full-brim skylight with Grecatec® 250/40/10 mm system consisting of:
Grecatec® 250/40/10 mm multiwall polycarbonate panel, co-extruded UV-protection on the external side, 3 walls structure, 10 mm thickness, thermal transmittance 2,8 W/m² K, clear or opal colours, thermowelded ends; dimensions: useable width 1000 mm, length upon request; 10-year warranty.
The panel can be supplied with UV-resistant coextruded transparent gasket to increase the performance of air and water tightness.
Spacer in PE foam to be positioned between Grecatec panel and support.
Metal half-ridge cover (upon request).

Grecatec® 250/40/25 mm

Grecatec® 250/40/25 mm is a corrugated multiwall panel, designed to be used for roofs and vertical walls in industrial buildings. It is used both in continuous roofing and single skylights in combination with sandwich panels and corrugated metal profiles in both sheds and vertical curtain walls. The panel can match various design requirements thanks to the corrugated 6-wall section which gives it a high load resistance. The shape of the overlaps allows side coupling with almost any insulated panel, keeping the fixing distance to 1 m between the panels. The two versions available with different heights of the external ridges have been designed to optimize the option either in combination with sandwich panels or in combination with polycarbonate panels.

Thickness (mm) **25**

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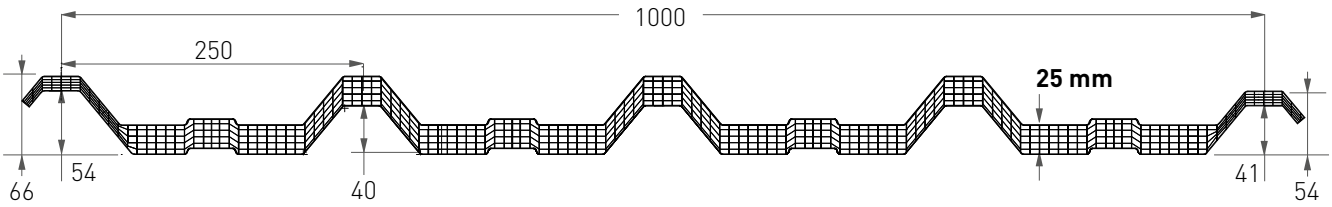
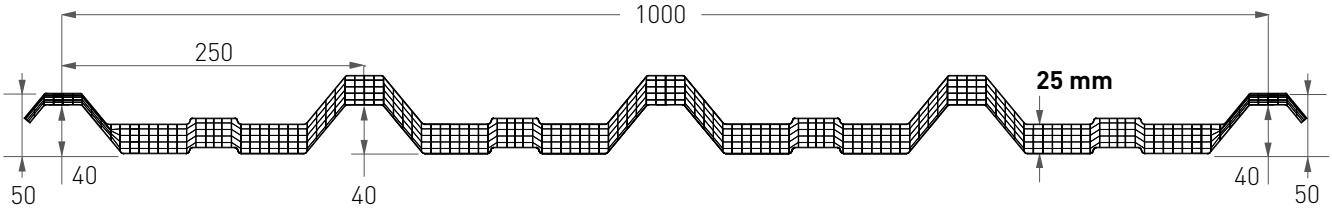
Grecatec® 250/40 25 mm technical data			
Thickness	25 mm		
Number of walls	6		
Trapez pitch	250 mm		
Height	40 mm		
Width	1000 mm		
Length	Upon request (maximum recommended length 6 m)		
Thermal transmittance	1,4 W/m^2 K		
Colours		**LT***	**G Value**
	Clear (8005)	45%	-
	Opal (8121)	16%	-
UV protection	Coextruded on the external side		
Warranty	10-year warranty against hail damage, yellowing, loss of light transmission		
Service temperature	-40°C / +120°C		
Thermal expansion coefficient	0,065 mm/m°C (6,5 x 10^{-5} 1/K)		
Fire certification	EUROCLASS B s1 d0		

*** Values calculated according to ASTM standard.**

Grecatec® 250/40/25 mm - Continuous application

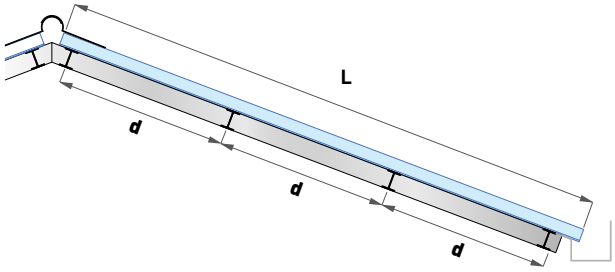


Grecatec® 250/40/25 mm - Single application with sandwich panels



Grecatec® 250/40/25 mm specifications
Construction of a flat translucent roof and / or full-brim skylight with Grecatec® 250/40/25 mm system consisting of:
Grecatec® 250/40/25 mm multiwall polycarbonate panel, co-extruded UV-protection on the external side, 6 walls structure, 25 mm thickness, trapez height 40 mm, thermal transmittance 1,4 W/m^2 K, clear or opal colours, thermowelded ends; dimensions: useable width 1000 mm, length upon request; 10-year warranty.
Panel available in two versions: with external trapez at different heights for continuous coupling or with external trapez of the same height for coupling with sandwich panels.
The panel can be supplied with UV-resistant coextruded transparent gasket, to increase the performance of air and water tightness.
Spacer in PE foam to be positioned between Grecatec panel and support.
Metal half-ridge cover (upon request).

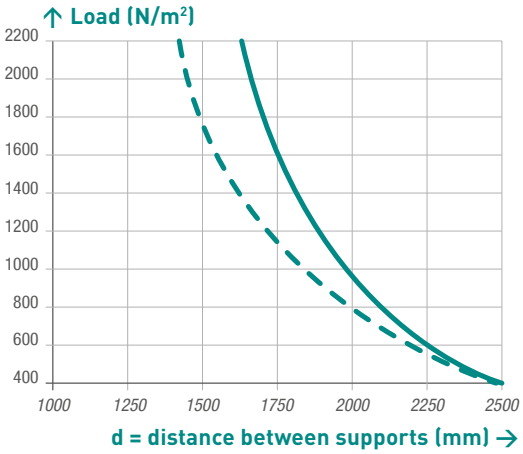
Grecatec® 250/40/25 mm load charts



L = length
d = distance between supports

Load chart with 3 or more supports for FLAT solution

• Skylight

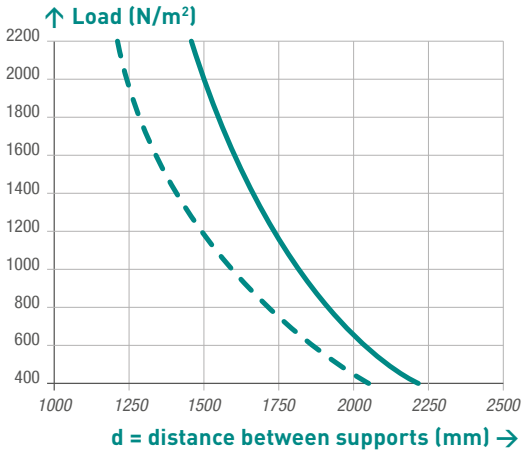


Deflection 1/50 - distance between supports

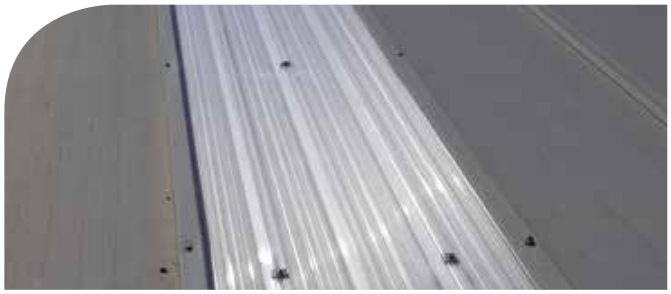
Maximum deflection limit 50 mm

NOTE
minimum recommended slope 5%.

• Continuous application

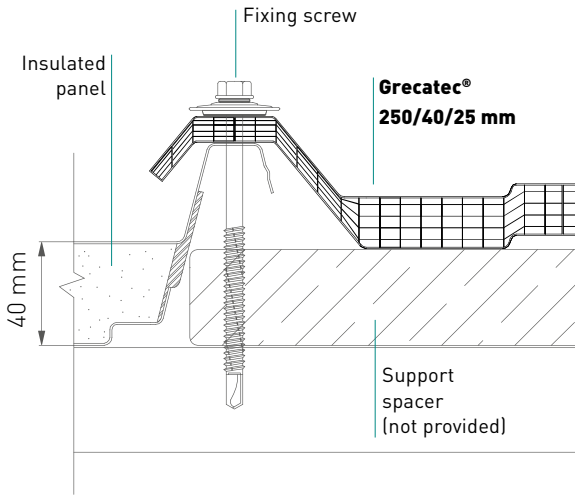


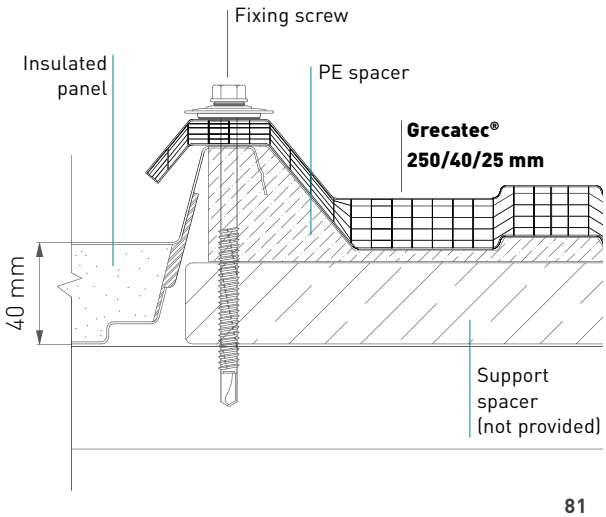
The load tables refer to the breakage load value of the system, i.e. the lowest value between: the collapse of the panel, failure of the frame or the panel springing out of its housing. The designer will check the actual loads acting on the system as well as the coefficients of amplification and safety to be applied in consideration of both the climatic conditions of the site, both the general and particular characteristics of the structure in which the polycarbonate is inserted. For these evaluations, refer to the specific regulations in force in each country. For detailed technical data, or for more information, refer to the Technical Manual or to the Stabilit Suisse Office.



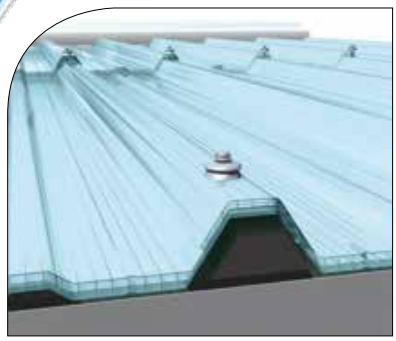
FLAT SINGLE installation option - Grecatec® 250/40/10 mm - Grecatec® 250/40/25 mm

- **Detail for fixing and overlapping with Grecatec® 250/40/25 mm**

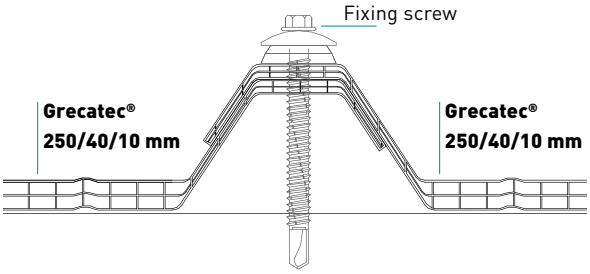


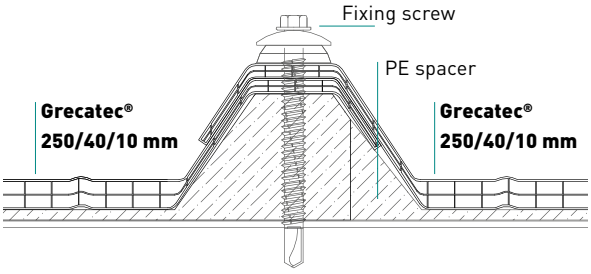


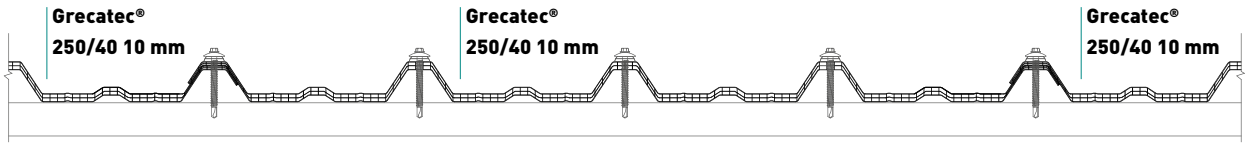
FLAT CONTINUOUS installation option - Grecatec® 250/40/10 mm - Grecatec® 250/40/25 mm

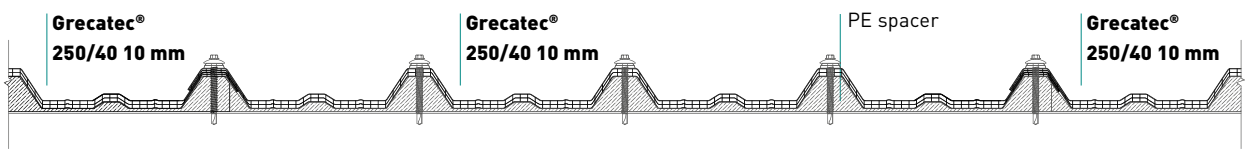


- **Detail for fixing and overlapping with Grecatec® 250/40 10 mm**









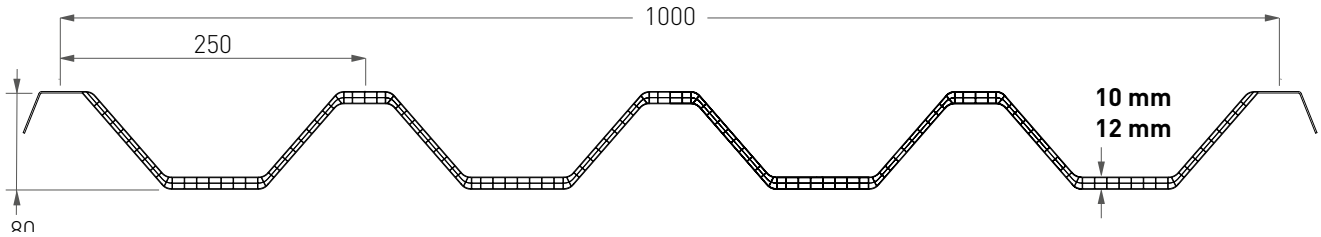
Grecatec® 250/80/10 mm - 12 mm

Grecatec® 250/80 10 mm is a corrugated multiwall panel designed for use in coverings and / or walls in the construction industry. It is used both in continuous roofing and single skylights in combination with sandwich panels and corrugated metal profiles for both wall shed and vertical curtain walls. Having a thickness of only 10 mm, the shape with a height of 80 mm ensures an excellent load resistance. Also available 12 mm thickness version.

LL

PLUS

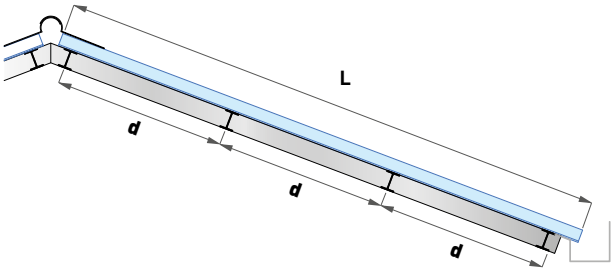
Thickness (mm) 10 12



Grecatec® 250/80/10 mm - 250/80/12 mm technical data				
Thickness	10 mm or 12 mm			
Number of walls	3			
Trapez pitch	250 mm			
Height	80 mm			
Width	1000 mm			
Length	upon request (maximum recommended length 6 m)			
Thermal transmittance	2,7 W/m² K - 10 mm 2,5 W/m² K - 12 mm			
Colours		**LT* - 10 mm**	**LT* - 12 mm**	**G Value**
	Clear (8005)	66%	64%	-
	Opal (8121)	49%	47%	-
UV protection	Coextruded on the external side			
Warranty	10-years warranty against hail damage, yellowing, loss of light transmission			
Service temperature	-40°C / +120°C			
Thermal expansion coefficient	0,065 mm/m°C (6,5 x 10^{-5} 1/K)			
Fire certification	EUROCLASS B s1 d0			

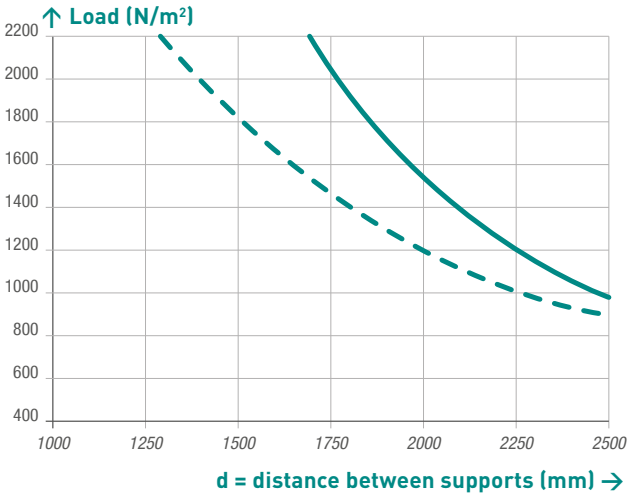
*** Values calculated according to ASTM standard.**

Grecatec® 250/80 10 mm load charts



L = length
d = distance between supports

• Load charts with 3 or more supports for FLAT solution



Skylight

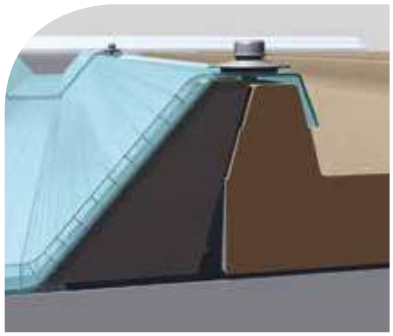
Continuous application

NOTE
minimum recommended slope 5%.

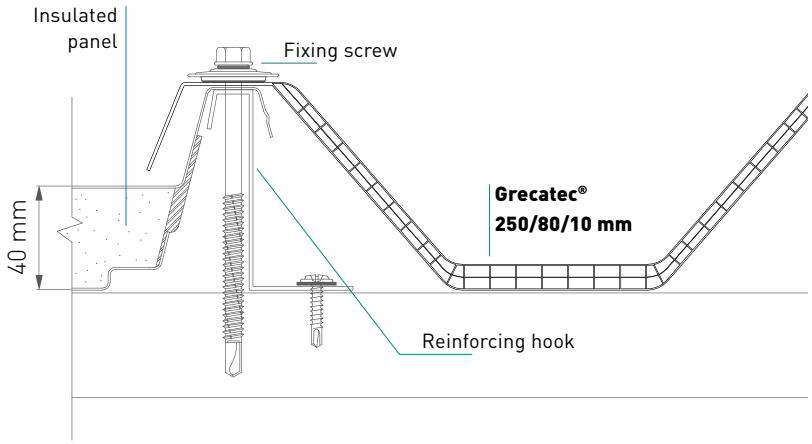
The load tables refer to the breakage load value of the system, i.e. the lowest value between: the collapse of the panel, failure of the frame or the panel springing out of its housing. The designer will check the actual loads acting on the system as well as the coefficients of amplification and safety to be applied in consideration of both the climatic conditions of the site, both the general and particular characteristics of the structure in which the polycarbonate is inserted. For these evaluations, refer to the specific regulations in force in each country. For detailed technical data, or for more information, refer to the Technical Manual or to the Stabilit Suisse Office.

Grecatec® 250/80/10 mm - 250/80/12 mm specifications
Construction of a flat translucent roof and / or full-brim skylight with Grecatec® 250/80/10 mm or 12 mm system consisting of:
Grecatec® 250/80/10 mm or 12 mm multiwall polycarbonate panel, co-extruded UV-protection on the eternal side, 3 walls structure, 10 mm thickness, trapez height 80 mm, thermal transmittance 2,7 W/m² K (2.5 W/m²K for 12 mm), clear or opal colours, thermowelded ends; dimensions: useable width 1000 mm, upon request lengths; ten-years warranty.
Spacer in PE foam to be positioned between Grecatec panel and support.
Metal half-ridge cover (upon request).

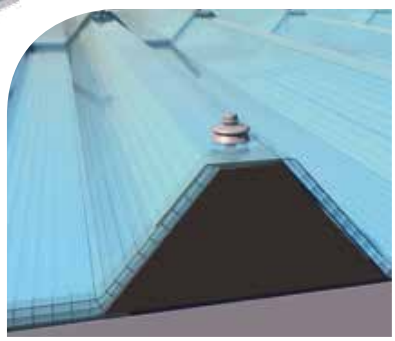
FLAT SINGLE installation option - Grecatec® 250/80/10 mm - Grecatec® 250/80/12 mm



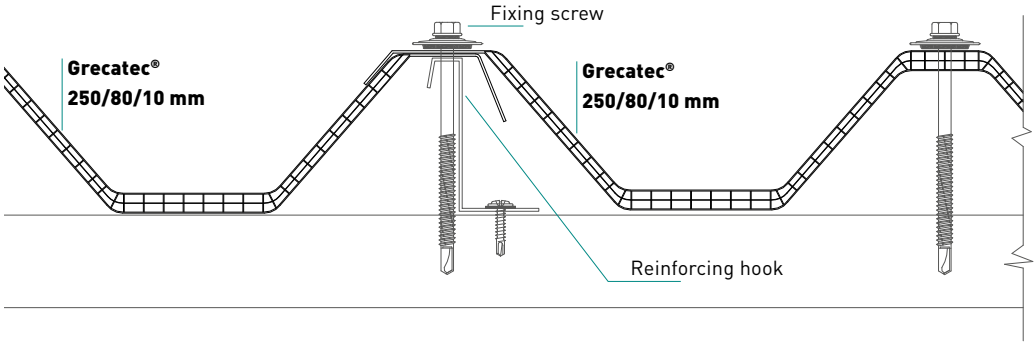
- **Detail for fixing and overlapping with Grecatec® 250/80/10 mm**

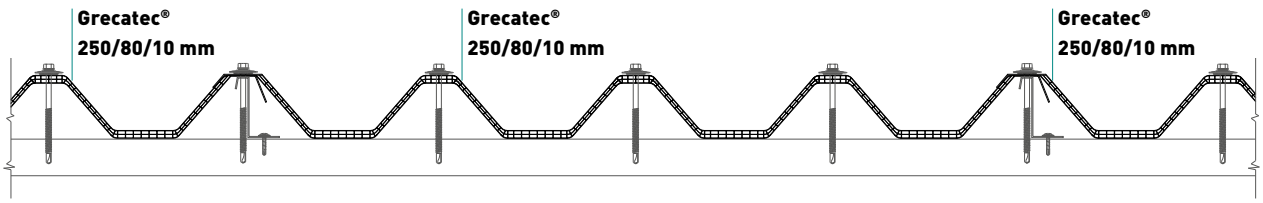


FLAT CONTINUOUS installation option - Grecatec® 250/80/10 mm - Grecatec® 250/80/12 mm



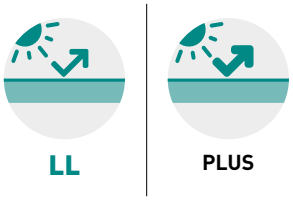
- **Detail for fixing and overlapping with Grecatec® 250/40/10 mm**

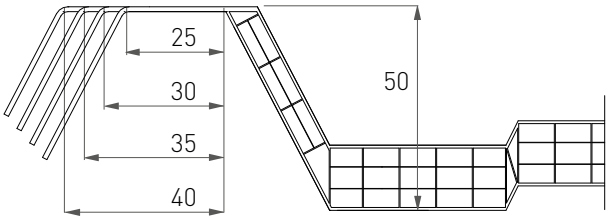




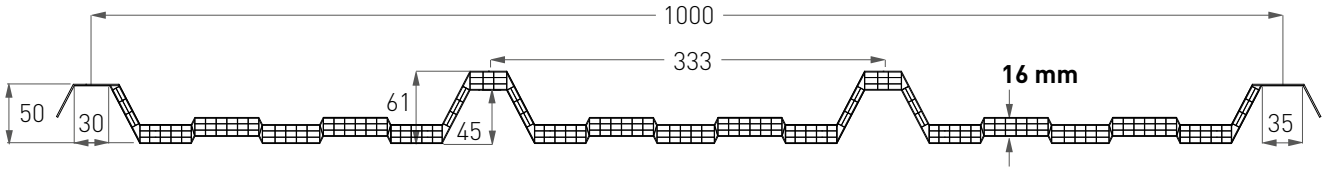
Grecatec® 333/45/16 mm

Grecatec® 333/45/16 mm is a corrugated multiwall panel, designed to be used for roofs and vertical walls in industrial buildings. It is used both in continuous flat roofing and single flat skylights in combination with sandwich panels and corrugated metal profiles. The panel can match various design requirements thanks to the corrugated 3-wall section which gives it a high load resistance, and the possibility to vary the width of the lateral overlapping wings (upon request). The shape of the overlaps allows side coupling with almost any insulated panel, keeping the fixing distance to 1 m between the panels.





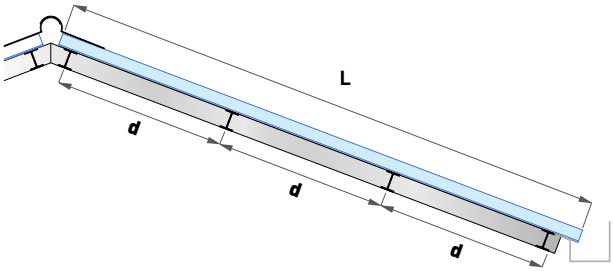
Thickness (mm) **16**



Grecatec® 333/45/16 mm technical data			
Thickness	16 mm		
Number of walls	4		
Trapez pitch	333 mm		
Height	45 mm		
Width	1000 mm		
Length	upon request (maximum recommended length 6 m)		
Thermal transmittance	2,0 W/m² K		
Colours		**LT***	**G Value**
	Clear (8005)	67%	-
	Opal (8121)	-	-
UV protection	Coextruded on the external side		
Warranty	10-year warranty against hail damage, yellowing, loss of light transmission		
Service temperature	-40°C / +120°C		
Thermal expansion coefficient	0,065 mm/m°C (6,5 x 10^{-5} 1/K)		
Fire certification	-		

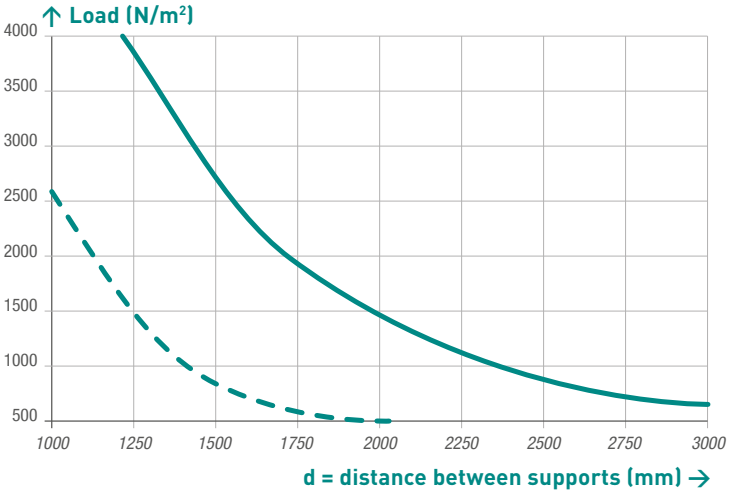
*** Values calculated according to ASTM standard.**

Grecatec® 333/45/16 mm load charts



L = length
d = distance between supports

• Load chart with 3 or more supports for FLAT solution



Skylight

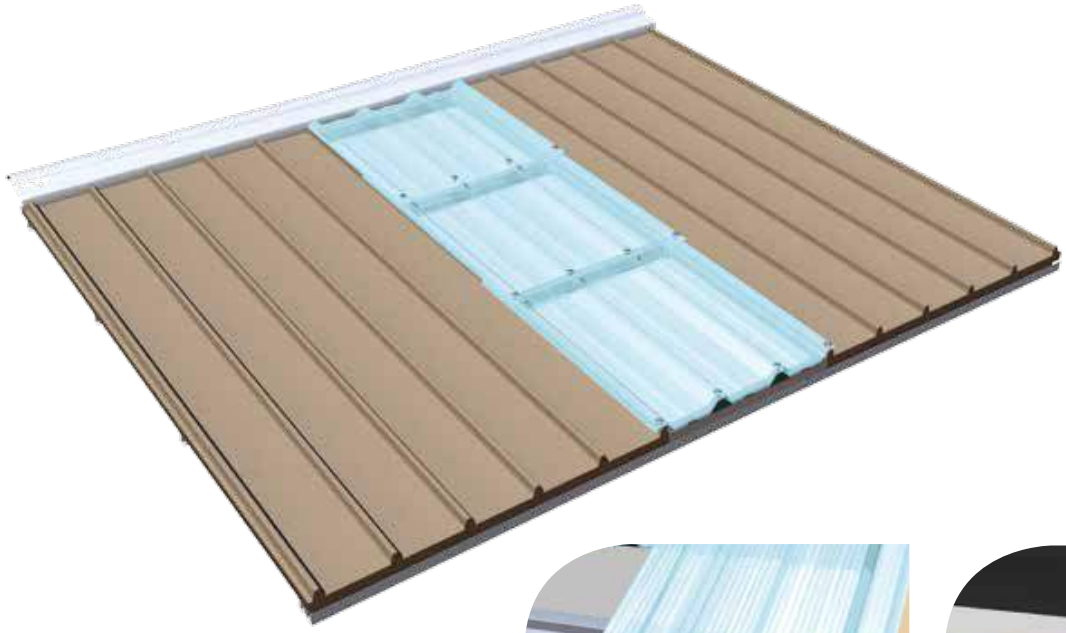
Continuous application

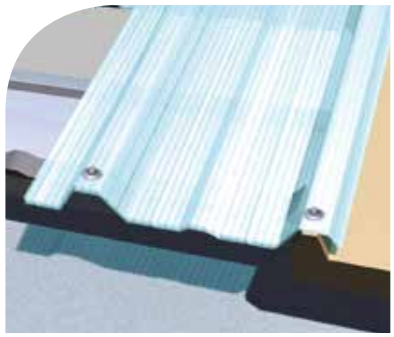
NOTE
minimum recommended slope 5%.

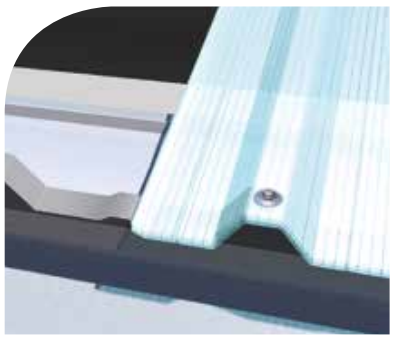
The load tables refer to the breakage load value of the system, i.e. the lowest value between: the collapse of the panel, failure of the frame or the panel springing out of its housing. The designer will check the actual loads acting on the system as well as the coefficients of amplification and safety to be applied in consideration of both the climatic conditions of the site, both the general and particular characteristics of the structure in which the polycarbonate is inserted. For these evaluations, refer to the specific regulations in force in each country. For detailed technical data, or for more information, refer to the Technical Manual or to the Stabilit Suisse Office.

Voci di capitolato Grecatec® 333/45/16 mm
Construction of a flat translucent roof and / or full-brim skylight with Grecatec® 333/45/16 mm system consisting of:
Grecatec® 333/45/16 mm multiwall polycarbonate panel, co-extruded UV-protection on the external side, 3 walls structure, 16 mm thickness, trapez height 45 mm, thermal transmittance 2,0 W/m² K, clear or opal colours, thermowelded ends; dimensions: useable width 1000 mm, length upon request; 10-year warranty.
Spacer in PE foam to be positioned between Grecatec panel and support.

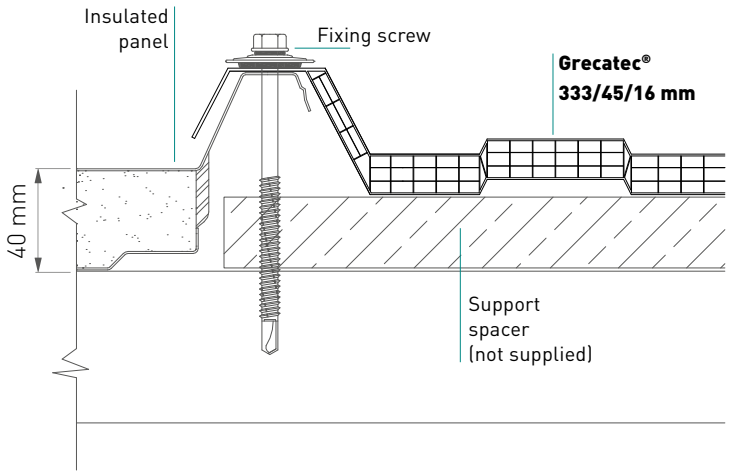
FLAT SINGLE and CONTINUOUS installation option - Grecatec® 333/45/16 mm







- **Detail of Grecatec® 333/45/16 mm fixing and side overlap**



Grecatec® accessories

ACCESSORY	CODE	TECHNICAL DESIGN / RENDERING
Metal half-ridge cover (upon request)	M9X4 - Metal half-ridge cover for Grecatec® 250/80/10 mm	
	M9A2 - Metal half-ridge cover for Grecatec® 250/40/10 mm	
	M9A1 - Metal half-ridge cover for Grecatec® 250/40/25 mm	
PE spacer	MZZ5 - Upper and lower PE spacer for Grecatec® 250/80/10 mm	
	MZZ8 - Lower PE spacer for Grecatec® 250/80/10 mm	
	M9A5 - CUpper and lower PE spacer for Grecatec® 250/40/10 mm	
	M9A4 - Upper and lower PE spacer for Grecatec® 250/40/25 mm	
	MZZ2 - Upper PE spacer for Grecatec® 333/45/16 mm	
	MZZ1 - Lower PE spacer for Grecatec® 333/45/16 mm	
Fixing screw with washer and EPDM gasket	M9N0 - 6.3 x 45 mm	
	M9N1 - 6.3 x 60 mm	
	M9N2 - 6.3 x 80 mm	
	M9N3 - 6.3 x 100 mm	
	M9T8 - 6.3 x 120 mm	
Reinforcing hook height 80 mm	M9X2	

INTEGRATED GASKET