

TECHNICAL INFORMATION 1.1.0

PC



Glazing Elements

PC-coex-Glazing Elements (GE)

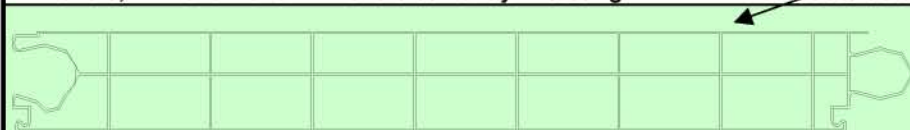
10 year limited guarantee*

tongue and groove safety glazing elements

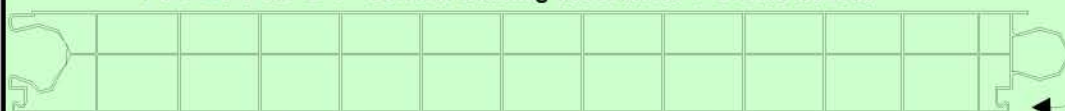
General building accordance Z - 10.1-183 for PC 2440-3

PC 2540-3, PC 2540-4 and PC 2540-6 currently in testing

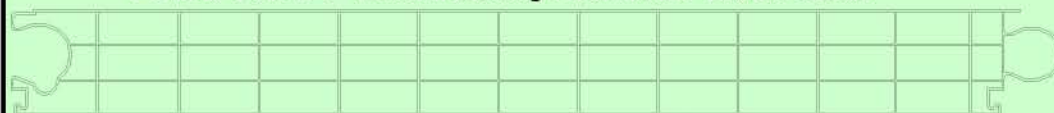
Outside of all panels UV-protected



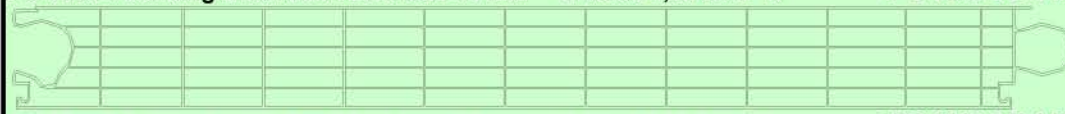
PC 2440-3 building width 400 Thickness 40 mm U-Value 1,65 W/m² K
PC 1440-3 for B 1 General building accordance P-BRA09-362603



PC 2540-3 building width 500 Thickness 40 mm U-Value 1,65 W/m² K
PC 1540-3 for B 1 General building accordance P-BRA09-362603



PC 2540-4 building width 500 Thickness 40 mm U-value 1,45 W/m² K *PC 1540-4 B 1 PZ 02102



PC 2540-6 building width 500 Thickness 40 mm U-Wert 1,20 W/m² K *PC 1540-6 B 1 FLT 337902

please check also info about BICOLOR/HEATBLOC

Product description

- Transparent Glazing Elements have a proven tongue and groove joining system, for quick and secure mounting regardless of weather condition
- An over hanging lip on the exterior side increases the water proofness and obstructs the penetration of dirt
- A double sided groove for the steel fastener allows for a secure and gliding attachment to the under construction by extra long panels
- A co-extruded UV protection layer on the exterior of panel secures the positive material characteristics
- 10-year guarantee according to guarantee declaration

The material and the advantages

- Our glazing elements are produced with the glass clear thermoplastic Polycarbonate (PC). With a special structure formula which increases the quality of the sunlight
- Even when subjected to a violent blow our PC glazing elements are practically unbreakable even by such extreme temperatures as -40 to + 130°C. As the impact resistancy is not dependent on the temperature Polycarbonate glazing elements are a good choice compared to other transparent materials
- **Advantages : day light, energy saving, security and allows flexibility in planning**

Technical data	PC**	PC**	PC	PC	PC - HI	Unit
Fire classification B 1 (DIN 4102)	1440-3	1540-3	1540-4	1540-6	High Impact	
Fire classification B 2 (DIN 4102)	2440-3	2540-3	2540-4	2540-6	2540-4	
Building width	400 ± 1%	500 ± 1%				mm
Thickness	40 ± 1%					mm
Weight max.	4,0	4,0	4,0	4,2	4,0	ca. Kg/m ²
Length available	up to 11 m or customer request					
Noise insulation	21	21	22	22	22	ca. dB
U-Value	1,65	1,65	1,45	1,20	1,45	W/m ² K
Modulus of elasticity	2400					N/mm ²
Expansion coefficient	0,065					mm/m/°C
Fire classification	B 1 and B 2	B 1 and B 2	B 1 and B 2	B 1 and B 2	B 2	DIN 4102
Temperature stability	130					°C
	minus 40 to plus 115					°C
Light transmission for clear	71	70	68	67	67	ca. %
Light transmission for opal	53	47	45	44	45	ca. %
Total energy transmission for opal	up to 0,35 depending on colour, bicolour and Heatbloc					
UV-transmission up to 380 nm	0					%
Joint permeability during beating rain	ca. 90% under DIN value					m ³ /h m ²
Ball impact	no damage through soccer, hand, medicine and hockey ball					
Puck impact	no breakage by 130 km/h					
Hail impact	no breakage by 40 mm thick balls with the speed of 17 m/sec (61 km/h)					
Building Elements with only very little radar-reflection	HF-Q properties - please ask					

Tolerance: Length: - 0 +(according to length) up to 15 mm, Thickness: ± 1 %, Curvature in length direction ± 0,5 % the length

Mounting areas

Glazing where no joining profiles are needed for roof and facade

Industry halls and warehouses
tennis and sport halls,
agriculture buildings, animal housing

Halls with strong vibrations
For constructions, which cannot support a large weight

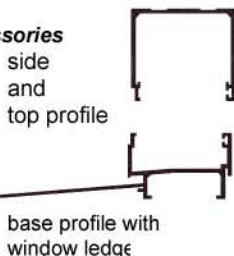
Buildings with explosion hazard or areas with extreme hail

Frame system and accessories

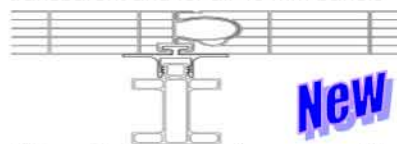
Rodeca can deliver for almost all mounting situations corresponding alu frame system with EPDM sealing gaskets and air hatches: also for Iso-glass.
Our systems are practical and proven.

pls. see technical info accessories

Example :



V-profile made of PC for larger spans
transparent and for all 40 mm panels

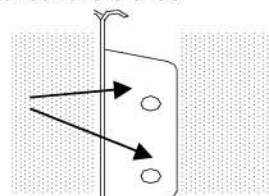


New

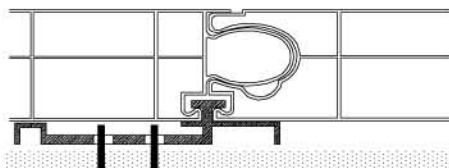
This profile increases the span and the load capacity for all applications
No more horizontal supports are necessary in the corner area of the building

Steel fastener

The steel fastener allows for a secure and gliding attachment to the under construction. Different types of steel fasteners may be applied according to the situation and panels. The steel fastener shown here is for mounting on the interior of the under construction.
Always use 2 screws for fastening !



Flat steel fastener



Ideal for fastening the panel onto the under construction as it allows for an optimal distance to the under construction allowing for air circulation.

Allowed span distances

The mentioned data are valid for closed buildings and according to the fact that the wind speed does not exceed the DIN 1055 T 4 norms.

By buildings in coastal or windy areas and buildings with one side open (also by large doors), the span width must be reduced.

B 1 Quality - DIN 4102

Article no. PC 1540-3 instead of 2540-3
Through the use of a special **flame retardant PC raw material** the transparency and colouring is slightly different than B2 quality

The 3-wall 40 mm thick panels are also available as **non-burning drip**.

Loading according to DIN 1055 T4 - vertical glazings

Height from ground	Pressure N/m ²	Wind Speed		Closed Buildings			One side open	
		m/s	km/h	Middle area Pressure	Corner Area Suction	Corner Area Suction	Middle Area Pressure+Suction	Corner Area Pressure+Suction
0 - 8 m	500	28,3	101,88	0,50	0,25	1,00	0,75	1,40
8 - 20 m	800	35,8	128,88	0,80	0,40	1,60	1,20	2,24
20- 100 m	1100	42,0	151,20	1,10	0,55	2,20	1,65	3,08

For closed buildings

Acceptable span widths (distance between purlins/faci Vertical Glazing

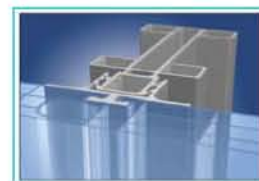
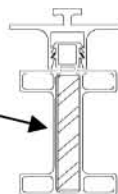
Height from ground	40 mm panel									
	Single Facit		Multi Facit		Multi Facit With PC-V Profile		PC-V Profile + reinforcing inlay			
	M	C	M	C	M	C	M	C		
0 - 8 m	2,40	1,80	2,00	0,80	2,90	2,30	4,75	3,50	5,50	3,90
8 - 20 m	2,00	1,60	1,45	0,50	2,60	2,00	3,90	2,80	4,35	3,10
20 - 100 m	1,70	1,30	1,10		2,00	1,60	3,30	2,35	3,70	2,65

M = Middle Area C = Corner Area

Roof glazing sloped .²⁾

Height 0 - 20 m

0,75 kN/m² according to DIN 1055 16 - 50 °	2,00	1,85	2,70	3,30	3,70
1,00 kN/m² according to DIN 1055 16 - 50 °	1,75	1,65	2,45	2,90	3,30



Important : in corner areas of buildings (2m or b/16) suction force is increased and must be calculated. Either the span distance decreasing, a travers profile or an alu covering profile must be mounted.

For the validity of the given span distance: is the use of the special developed Rodeca frame systems and accessories as well as the mounting instructions

²⁾ The data are valid for snow load of 750 N/m² and in connection with pressure and suction stress as well as temperature implied in order to avoid snow sack build up

Please check also our general technical information for PC.