

RAWCELL® Fiber - PGF (6,35/10)(0,3-0,3)S(10)

Description of the product

PGF is a sandwich panel without a cosmetic finish, with an aluminium honeycomb core and glass fibre fabric skins, impregnated with phenolic resins. Main fields of application: naval, weight-reduction of marble and mosaics.

Layers

1) INTERNAL CORE

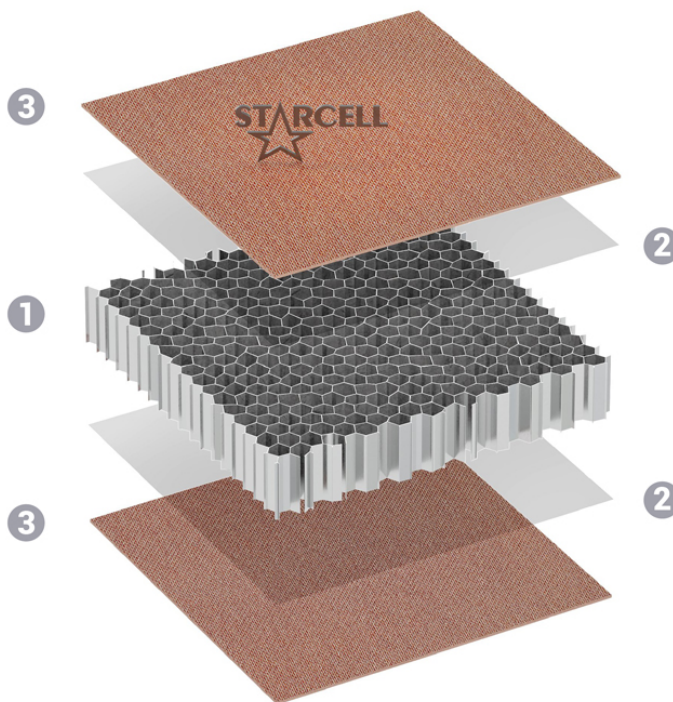
aluminium honeycomb
(Starcell production) aluminium
alloy: 3000 series
density: 50 - 56 - 65 - 80 kg/m³
cell diameter:
6.35 mm (standard);
10 - 12.7 mm (on request)

2) ADHESIVE

thermosetting
(Starcell formula)

3) EXTERNAL SKINS

glass fabric impregnated with phenolic resins
(dry fabric weight: 300 g/m² per side)



Technical sheet of the panel

PRODUCT ID CODE		
Code structure	Value in this sheet	Meaning
RAWCELL®		family to which the product belongs
Fiber		subfamily to which the product belongs
PGF (n/n)(n-n)		panel type
PGF (n/)()	6,35/ =	size (mm) of the hexagonal honeycomb cell
PGF (/n)()	/10 =	panel thickness (mm)
PGF (/)(n-n)	0,3-0,3	thickness (mm) of the two skins
S(n)	10=	standard dimensions (mm) - S(10) = 1.270 X 3.050

CHARACTERISTICS OF MATERIALS AND COMPONENTS

Structural skins

material:	glass fibre roving fabric
type:	(dry weight 300 g/m ²)
standard thicknesses (mm):	0,3
impregnation:	phenolic resin
surface appearance:	raw
standard adhesive:	thermosetting system (Starcell formula)

Hexagonal cell honeycomb

material:	aluminium foil
type:	3000 series alloy
foil thicknesses (µm):	60 - 70
density (kg/m ³):	50 - 56 - 65 - 80
standard cell sizes (mm):	6,35
on request cell size (mm):	10 - 12,7

PHYSICAL AND DIMENSIONAL CHARACTERISTICS OF THE PANEL

Dimensions

standard (mm):	S(9) = 1.270 X 2.550 - S(10) = 1.270 X 3.050
special (mm):	1.270 - maximum length: 4.300
tolerance (mm):	± 1 (squared panels)

Thicknesses

standard (mm):	5	10	12,7	15	20	25	30
special (mm):	from 4 to 60						
tolerance (mm):	± 0,3						

Weights*

weights referred to standard thicknesses (kg/m ²):	1,46	1,78	1,96	2,11	2,43	2,76	3,08
tolerance (kg/m ²):	± 0,2						

*The weights refer to panels with the following characteristics:

cell size (mm): 6,35

foil thickness (µm): --

thickness of the skins (mm): 0,3

MECHANICAL CHARACTERISTICS OF THE PANEL

The characteristics of this sheet refer to the following type of panel:

RAWCELL® Fiber - PGF (6,35/10)(0,3-0,3)S(10)

Starcell's Technical Department will gladly work with customers to determine the features of other panel configurations

Type	Standard	Characteristic value						
standard thicknesses	-	5	10	12,7	15	20	25	30
maximum load* (N):	DIN 53293; EN 14125		205					
deflection at Max* load (mm):	DIN 53293; EN 14125		3,1					
resistance to peeling* (N):	DIN 53295	> 130 (min.) - >400 (average)						
compressive strength* (Kg/cm²):	UNI 4913	20						
elasticity modulus (E)* (N/mm²):	DIN 53293		15.600					
operating temperature (°C):		from -40°C to +80°C						

(*) values obtained by Starcell's Internal Laboratory.

CERTIFICATIONS

Type	Standard	Sector	Class
fire behaviour of the panel	IMO Res. MSC.307(88) - 2010FTP Code	SHIPBUILDING	C
fire behaviour of the honeycomb	ISO 1182		0

PROPERTIES

- Excellent fire resistance and low emission of toxic fumes.
- Excellent resistance to shear and bending forces.
- Excellent dimensional stability, also in terms of flatness over time.
- Very good compressive strength (due to aluminium honeycomb).
- High mechanical performance, compared to the remarkable lightness of the panel.
- Excellent weather resistance.
- Wide operating temperature range.
- Ease of machining with manual or CNC equipment.

FIELDS OF APPLICATION

The RAWCELL® FIBER - PGF panel is normally used in naval applications where the use of fire/smoke certified materials is mandatory; in particular, the panel is extensively being requested for internal use in the sector of motor yachts and large shipbuilding (furniture, structural bulkheads, support for lightened stone, etc.) where its excellent performance is increasingly appreciated and where, due to weight or compatibility with particular finishes (marble, granite, etc.), metal support materials cannot be used.

STORAGE

The RAWCELL® Fiber - PGF panel is a product in the "semi-finished products" category and therefore is subject to further processing; we recommend storing the panels horizontally in a closed and dry environment, possibly away from heat sources and to support them along their edges.

SAFETY DATA SHEETS

On request, safety data sheets for this product are available in Italian or English. For more information, please visit: www.starcellspa.com.

Scheda tecnica aggiornata al 20-09-2019