

RAWCELL® Fiber - PGAL300T (6,35/15)(0,3-0,3)S(9)

Description of the product

PGAL300T is a sandwich panel without a cosmetic finish, with an aluminium honeycomb core and glass fibre fabric skins impregnated with epoxy resins directly by Starcell. Main fields of application: construction, furniture, weight-reduction of marble and mosaics.

Layers

1) INTERNAL CORE

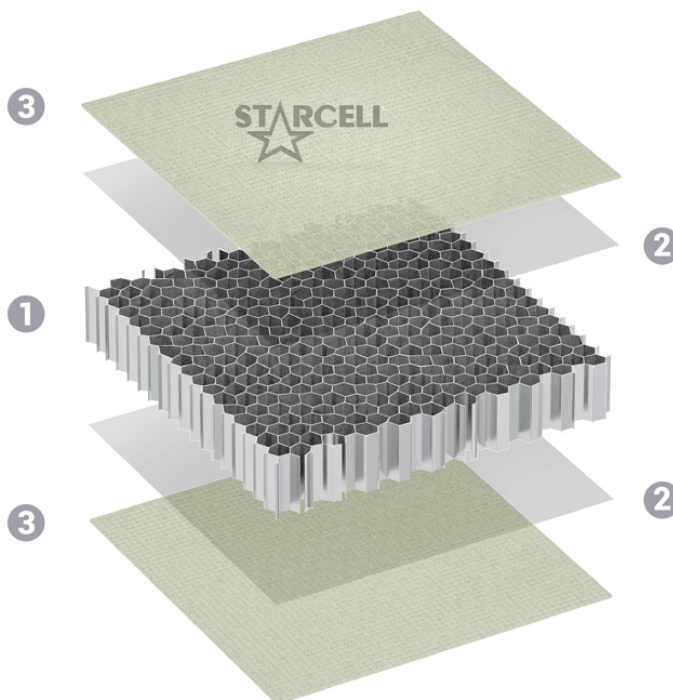
aluminium honeycomb
(Starcell production) aluminium
alloy: 3000 series
density: 50 - 56 - 65 - 80 kg/m³
cell diameter:
6.35 mm (standard);
10 mm (on request)

2) ADHESIVE

thermosetting
(Starcell formula)

3) EXTERNAL SKINS

glass fabric impregnated with epoxy 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
PGAL300T (n/n)(n-n)		panel type
PGAL300T (n/)()	6,35/ =	size (mm) of the hexagonal honeycomb cell
PGAL300T (/n)()	/15 =	panel thickness (mm)
PGAL300T (/)(n-n)	0,3-0,3	thickness (mm) of the two skins
S(n)	9=	standard dimensions (mm) - S(9) = 1.270 X 2.550

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:	epoxy resin (Starcell formula)
surface appearance:	raw
standard adhesive:	thermoplastic film (Starcell formula)
on request adhesive:	epoxy film

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

PHYSICAL AND DIMENSIONAL CHARACTERISTICS OF THE PANEL

Dimensions

standard (mm):	S(9) = 1.270 X 2.550 - S(13) = 1.550 X 3.050
special (mm):	1.550 - 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):	1,99	2,31	2,49	2,64	2,96	3,29	3,61
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 - PGAL300T (6,35/15)(0,3-0,3)S(9)

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				892			
deflection at Max* load (mm):	DIN 53293; EN 14125				5,78			
resistance to peeling* (N):	DIN 53295	> 130 (min.) - >350 (average)						
compressive strength* (Kg/cm²):	UNI 4913	18						
elasticity modulus (E)* (N/mm²):	DIN 53293				26.282			
moment of inertia (I)* (mm⁴):	DIN 53293				2.431			
operating temperature (°C):		from -40°C to +80°C						
maximum distributed load** (Kg):		150						
deflection**(mm) for a distributed load of: 120 kg		4,30						

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

(**) value obtained on a panel held on 4 sides:

size (mm): 1.000 X 1.000

thickness (mm): 15

cell size (mm): 6,35

PROPERTIES

- 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

Typical applications of the RAWCELL® FIBER - PGAL300T panel are in the marble, stone and ceramic markets; the panel is often used for civil engineering applications both indoors and outdoors (including application in ventilated façades); it is supplied in standard or custom sizes to suit all needs.

STORAGE

The RAWCELL® FIBER - PGAL300T 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