

## 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

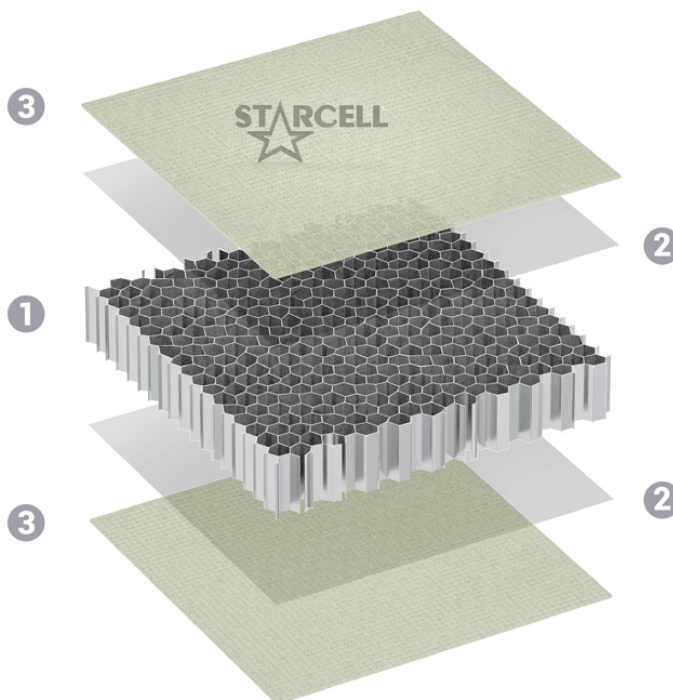
aluminium honeycomb  
(Starcell production) aluminium  
alloy: 3000 series  
density: 50 - 56 - 65 - 80 kg/m<sup>3</sup>  
cell diameter:  
6.35 mm (standard);  
10 mm (on request)

#### 2) ADHESIVE

thermosetting  
(Starcell formula)

#### 3) EXTERNAL SKINS

glass fabric impregnated with epoxy resins  
(dry fabric weight: 300 g/m<sup>2</sup> 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 <sup>2</sup> )
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 <sup>3</sup> ):	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 <sup>2</sup> ):	1,99	2,31	2,49	2,64	2,96	3,29	3,61
tolerance (kg/m <sup>2</sup> ):	± 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](http://www.starcellspa.com).

*Scheda tecnica aggiornata al 20-09-2019*