

RAWCELL® Fiber - PGAL300T+LZ (6,35/15)(0,3-0,3)+(0,3)S(7)

Description of the product

PGAL300T+LZ is a sandwich panel without a cosmetic finish, with an aluminium honeycomb core and glass fibre fabric skins impregnated with epoxy resins. One side of the panel is reinforced with a sheet of steel to improve its fastening. Main fields of application: construction (ventilated façades), 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

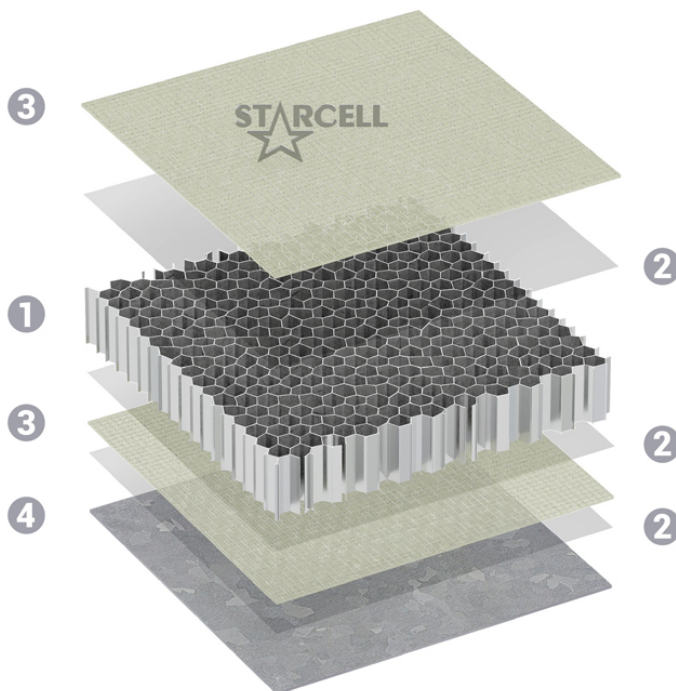
thermosetting
(Starcell formula)
both for glass fibre skins and for the reinforcement

3) EXTERNAL SKINS

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

4) REINFORCEMENT

primed galvanized steel sheet
thicknesses: 0.30 to 0.5 mm



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+LZ (n/n)(n-n)		panel type
PGAL300T+LZ (n/)()	6,35/ =	size (mm) of the hexagonal honeycomb cell
PGAL300T+LZ (/n)()	/15 =	panel thickness (mm)
PGAL300T+LZ (/ /)(n-n)	0,3-0,3	thickness (mm) of the two skins
+(n)	+0,3	thickness (mm) of the reinforcement
S(n)	7=	standard dimensions (mm) - S(7) = 1.250 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:	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

Reinforcement

material:	steel sheet
type:	hot-dip galvanized and primed
standard thicknesses (mm):	0,3 - 0,5
surface appearance:	raw

PHYSICAL AND DIMENSIONAL CHARACTERISTICS OF THE PANEL

Dimensions

standard (mm):	S(7) = 1.250 X 2.550 - S(8) = 1.250 X 3.050
special (mm):	1.250 - maximum length: 4.300
tolerance (mm):	± 1 (squared panels)

Thicknesses

standard (mm):	10	12,7	15	20	25	30	40
special (mm):	from 4 to 60						
tolerance (mm):	± 0,3						

Weights*

weights referred to standard thicknesses (kg/m ²):	5,31	5,49	5,64	5,96	6,29	6,61	8,86
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+LZ (6,35/15)(0,3-0,3)+(0,3)S(7)

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

Type	Standard	Characteristic value						
standard thicknesses	-	10	12,7	15	20	25	30	40
maximum load* (N):	DIN 53293; EN 14125			977				
deflection at Max* load (mm):	DIN 53293; EN 14125			3,72				
resistance to peeling* (N):	DIN 53295	> 130 (min.) - >350 (average)						
compressive strength* (Kg/cm²):	UNI 4913	18						
elasticity modulus (E)* (N/mm²):	DIN 53293			45.582				
moment of inertia (I)* (mm⁴):	DIN 53293			2.431				
operating temperature (°C):		from -40°C to +80°C						

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

PROPERTIES

- Exceptional compressive strength (aluminium honeycomb).
- Excellent dimensional stability, also in terms of flatness over time.
- Very good compressive strength (due to aluminium honeycomb).
- Quick and cost-effective installation compared to traditional methods.
- Ideal for outdoor applications due to its excellent resistance to aggressive weather.
- Wide operating temperature range.

FIELDS OF APPLICATION

Typical applications for the RAWCELL® Fiber - PGAL300T+LZ 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. The exclusive combination, designed by Starcell, of galvanised sheet metal and glass fibre panel is such as to determine better performance both in terms of mechanical characteristics and in terms of final assembly.

STORAGE

The RAWCELL® Fiber - PGAL300T+LZ 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.

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