



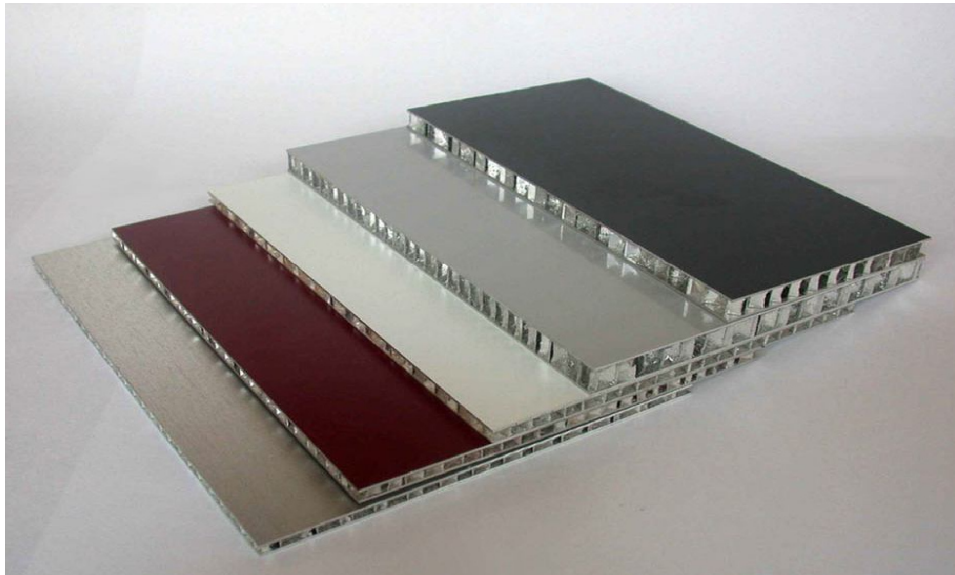
STARCELL S.p.A. - Honeycomb & Composite Panels

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METALCELL® FP Panel



FP Panel

PANEL THICKNESS: from 4 to 150 mm.

EXTERNAL COATINGS: mill finish/ Anodized/ Pre-painted (liquid, powder or PVDF).

ADHESIVE: Thermoplastic film or polyurethane adhesive system.

CORE: Aluminium honeycomb (cell sizes: 6.35mm; 10mm ;18mm).

Technical Specifications

METALCELL® FP is a panel made with an aluminium honeycomb core manufactured by STARCELL. The FP panel has the following distinguishing features: lightweight, a high level of rigidity and flatness, excellent mechanical performance, fire resistance, absence of toxic fumes emissions, dimensional stability over time. This performance permits a widespread use of the FP panel in differing markets and application typologies.



STARCELL SpA - Sede Legale: Zona Industriale Nerico – 85020 Pescopagano (PZ)

Cap.Soc. € 3.755.960,00 - Isc.N. 1689 Trib.Melfi (PZ) - fasc.67 C.C.I.A.A 75469 -C.F. 07946310153 - P.IVA 01041320761

Pag. 1/3

The **FP** panel has the following configuration:

- “Standard” external faces sheets in aluminium (rough finishing). Different typologies of aluminium alloys are available, minimum useable thickness: 0,1 mm, maximum useable thickness: 2mm.
- “Special” face sheets: pre-painted (liquid, powder or PVDF) finishing), anodized aluminium
- Panel core is an aluminium honeycomb sheet manufactured by STARCELL in its own manufacturing plants. Honeycomb manufactured by STARCELL complies with the most important international specifications regarding material safety and durability.
- A system of gluing based on the use foreseen by the client: two different types of gluing can be used to meet the needs of most applications (thermoplastic or thermosetting, both STARCELL formulations). All panel components are assembled and glued using particular manufacturing processes which may employ, in order to obtain the highest level of mechanical and dimensional performance, both ‘hot’ and ambient temperature processes.

The use of metallic material for 100% of its configuration guarantees a total recycling of the **FP** panel in compliance with the latest international legislation in its regard.

Features

- Excellent bending, cutting and traction stress resistance.
- Excellent dimensional stability, particularly regarding flatness.
- Excellent resistance to compression loads (honeycomb).
- Excellent ratio between mechanical performance (high) / weight (light).
- Excellent resistance over time to both atmospheric (moisture) and chemical agents.
- Easy to work: finishing operations can be carried out using conventional manual equipment or any CNC machine provided it is appropriate for working on aluminium.
- High interval of operating temperatures (from -40°C to + 80°C).

Physical Characteristics

Width (mm)*	1.000 – 1.250 – 1.500
Length (mm)*	2.550 – 3.050 – 4.250
Dimension Tolerance (mm)	+/- 1
Thickness Tolerance (mm)	+ /- 0,3
Skins	Alluminium (mill finish): alloy 1050 - 3105 (std) – alloy 5000 (on request) thickness from 0,5 up to 2 mm
Honeycomb Core	Alluminium alloy 3003 (60 - 70 μ).- Cell dimension: 6,35 - 10 – 12,7 - 18 mm . Density 29 – 55 – 65 Kg/m ³

* *Untrimmed quotes – Trimming on request.*



Mechanical Characteristics

Feature	Result	Reference
Fire properties	Classe 0 (honeycomb) <i>Low flame spread</i> <i>M & F class</i> <i>A2-S1d0</i>	ISO 1182 MED 96/98 Res. IMO 653 UNI 11170-3 EN 13501-1
Peeling strength (N)	>130 (min) medium 350	DIN 53295
Compression strength* (Kg/cm ²)	26,40	UNI 4913
Max load**(N)	2.000	UNI EN 14125; DIN 53293
Bending at max load** (mm)	1,70	UNI EN 14125; DIN 53293
E modulus** (N/mm ²)	122.700	UNI EN 14125; DIN 53293
Rigidity** R (Nm ²)	483	UNI EN 14125; DIN 53293

* Tests carried out in internal laboratory. Values referred to FP 06/10 1010

** Tests carried out in internal laboratory. Values referred to FP 06/15 0505

Product Codes

The **FP** panel code uses the following standard:

FP 6006/20 0505

FP: Type of panel.

60: Thickness of the aluminium foil used for the honeycomb (micron).

06: Cell size (6,35 mm).

20: Thickness of the panel (mm).

05: Thickness of the lower skin (1/10 mm).

05: Thickness of upper skin (1/10 mm).

Storage

The **FP** panel is a semi-worked product and therefore subject to further working. Should the panels be stored in a warehouse, we suggest to store them horizontally and supported along their perimeter.

Safety Data Sheets

The product safety details are available in either Italian or English upon request. For further information please go to www.starcellspa.com.

N.B. – The information herein is believed to be correct to the best of Starcell S.p.A's knowledge; we do not warrant the accuracy and completeness of the property features and their particular applications. Starcell S.p.A reserves the right to make any modifications. **Rev.3 - 19_09_2017**

