STARCELL
HONEYCOMB & COMPOSITE PANELS

Via Sebenico 22 - 20124 Milano
Tel: +39 026883537 - Fax : +39 0269008152
E-Mail: info@starcellspa.com Website: www.starcellspa.com

MIXCELL® Solid Surface - SS-6 (6,35/n)(0,5-0,5)S(8)

Description of the product

SS-6 is a sandwich panel with a cosmetic finish consisting of a "Solid Surfaces" (6 mm). It has an aluminium honeycomb core and skins made of glass fibre fabric. It is obtained by gluing a "Solid Surface" finish to a panel without finish such as the RAWCELL® Fiber panel. Main fields of application: furniture, lifts, shipbuilding, rail transport, road transport.

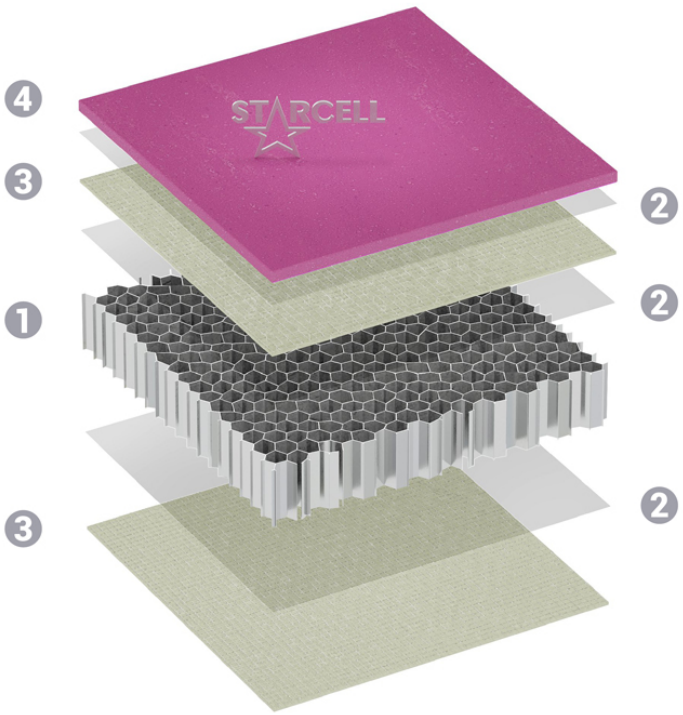
Layers

1) INTERNAL CORE
aluminium honeycomb
(Starcell production)
aluminium alloy: 3000 series
density: 29 - 50 - 56 - 65 - 80 kg/m³
cell diameter:
6.35 mm (standard);
10 - 12.7 - 19 mm (on request)

2) ADHESIVE
thermoplastic
(Starcell formula)

3) EXTERNAL SKINS
glass fabric impregnated with epoxy resins
(dry fabric weight: 500 g/m² per side)

4) FINISHING
Solid Surface
thickness 6 mm



Technical sheet of the support panel

PRODUCT ID CODE		
Code structure	*Value in this sheet*	*Meaning*
MIXCELL®		family to which the product belongs
Solid Surface		subfamily to which the product belongs
SS-6 (n/n)(n-n)		panel type
SS-6 (n/)( )	6,35/ =	size (mm) of the hexagonal honeycomb cell
SS-6 (/n)( )	/n =	panel thickness (mm)
SS-6 (/)(n-n)	0,5-0,5	thickness (mm) of the two skins
S(n)	8=	standard dimensions (mm) - S(8) = 1.250 X 3.050

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CHARACTERISTICS OF MATERIALS AND COMPONENTS

Front finishing layer

material:	solid surface
standard thicknesses (mm):	6,0
surface appearance:	smoothed - bush-hammered
standard adhesive:	epoxy film

Structural skins

material:	glass fibre roving fabric
type:	(dry weight 500 g/m² - 600 tex)
standard thicknesses (mm):	0,5
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/m³):	29 - 50 - 56 - 65 - 80
standard cell sizes (mm):	6,35 - 10 - 12,7 - 19

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/m²):	3,06	3,39	3,56	3,71	4,04	4,36	4,69
tolerance (kg/m²):	± 0,2						

*The weights refer to panels with the following characteristics:

cell size (mm): 6,35
foil thickness (µm): --
thickness of the skins (mm): 0,5

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MECHANICAL CHARACTERISTICS OF THE PANEL

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

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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	251	479	515	1.583	2.140	2.692	2.338
deflection at Max* load (mm):	DIN 53293; EN 14125	11,42	4,41	6,12	8,86	8,18	13,01	12,59
resistance to peeling* (N):	DIN 53295	> 130 (min.) - >350 (average)						
compressive strength* (Kg/cm²):	UNI 4913	21,97 ± 10						
elasticity modulus (E)* (N/mm²):	DIN 53293	14.460	16.130	12.169	18.817	23.777	30.062	36.341
moment of inertia (I)* (mm⁴):	DIN 53293	253	1.128	2.363	3.942	9.506	14.555	18.758
operating temperature (°C):		from -40°C to +80°C						
maximum distributed load** (Kg):		450						
deflection**(mm) for a distributed load of: 200 kg		5,00						

(*) 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): 20
cell size (mm): 6,35

CERTIFICATIONS

Type	Standard	Sector	Class
fire behaviour of the honeycomb	ISO 1182		0

PROPERTIES

- Very high resistance to bending, shear and tensile stress.
- Excellent resistance to peeling.
- Excellent dimensional stability, also in terms of flatness over time.
- Very good compressive strength (due to aluminium honeycomb).
- Maximum mechanical performance, compared to the high lightness of the panel.
- Excellent weather resistance.
- Wide operating temperature range.

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FIELDS OF APPLICATION

Typical applications for the MIXCELL® Solid Surface - SS-6 panel include interior design and general design.

STORAGE

The MIXCELL® Solid Surface - SS-6 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