

HYLITE®

LIGHTNESS IN ALU LOOK

FIRST CHOICE FOR NUMEROUS APPLICATIONS



HYLITE®

THE WORLD'S THINNEST COMPOSITE PANEL

PRODUCT

HYLITE® is an aluminium composite panel with a polypropylene core and aluminium outer skins.

It is the world's thinnest composite panel and, even when used on large surface areas, its dimensional stability is excellent and it is lightweight. HYLITE® offers another special feature: the panel's core material can provide a hinge function.

HYLITE® can do even more. It offers a wide range of processing options: one option in particular should not be overlooked, it can be three-dimensionally formed. Extra temperature resistance up to 120°C means HYLITE® is the first choice for a whole range of applications. For instance, powder coating can provide an almost limitless range of surface finishes.

APPLICATIONS

INDUSTRY

- Interior/exterior cladding for commercial vehicles, for shipbuilding, caravans / buses / trains
- Inspection/maintenance flaps

FURNITURE CONSTRUCTION

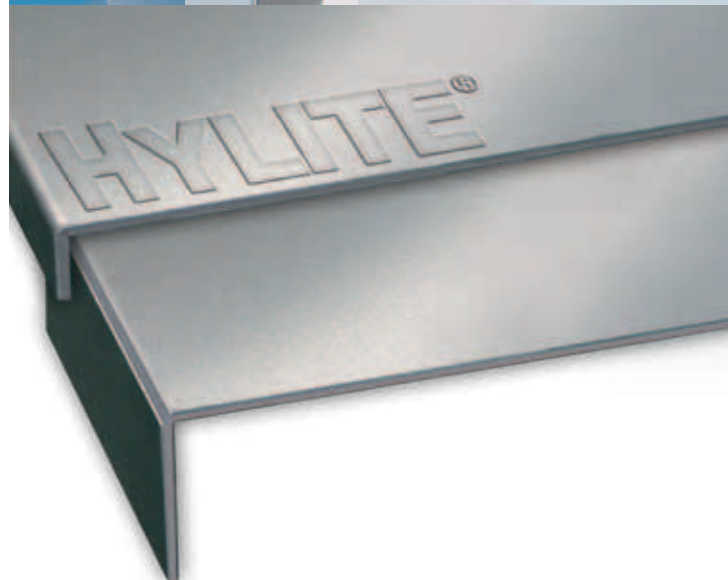
- Notebook stands
- Light boxes
- Loudspeaker casings
- Furniture design

OFFICE SUPPLY

- Office Supply –office article design
- Top quality CD sleeves
- Files and books backs
- Menus

OTHER ITEMS

- Bicycle mudguards
- Protectors
- Luggage articles
- Technical manuals for the automobile industry
- Sophisticated packaging
- etc.



HYLITE® – AT A GLANCE

- Optimal material to weight ratio: HYLITE® is 65% lighter than conventional steel sheets or 30% lighter than aluminium sheets yet provides the same flexural strength.
- Dimensional stability at temperatures up to 150 °C. A wide range of surface finishes can be achieved by powder coating.
- HYLITE® has properties similar to aluminium and can be processed using the same equipment.
- "Hinge effect ": The option of using the core as hinge (tested by the German technical inspection organisation, RWTÜV). HYLITE® can be used in a wide range of applications not only in industrial contexts but also in the office: e.g. cupboards, furniture, file backs etc.
- HYLITE® is excellent in terms of recycling. Both the aluminium and plastic components can be easily separated for recycling.
- HYLITE® can be three-dimensionally formed.

PROCESSING

- cutting
- sawing
- drilling
- gluing
- riveting
- hinge joint milling
- bending
- profile milling
- powder coating
- roll bending
- folding
- punching
- contour cutting
- screen printing
- screwing
- embossing/pressure forming
- water jet cutting

Creative design options for furniture making and product design, display and point of sale advertising as well as office supplies can be created with HYLITE® using a variety of processing techniques. Individual 3-D applications can be made by contour cutting, forming or other standard means of processing aluminium composite panels. (Please see DIBOND® brochure).

What is more, HYLITE® core material can be used as a hinge, which even after multiple bending remains undamaged. This function is achieved by milling parallel grooves into both outer aluminium skins. RWTÜV testing has shown that even after 80.000 bends the hinge application is damage-free.

When HYLITE® is powder coated, it fulfils the requirements of special surfaces with higher coating thicknesses (> 30µm), for instance, enhanced scratch-resistance. HYLITE® withstands temperatures ranging from +120°C to +150°C for a short period (approx. 15 – 20 minutes) so low-temperature powder coating can be carried out.

HYLITE® can also be embossed provided ultimate elongation is taken into consideration.

HYLITE® classic can be engraved just like other metallic surfaces, using a stylus.

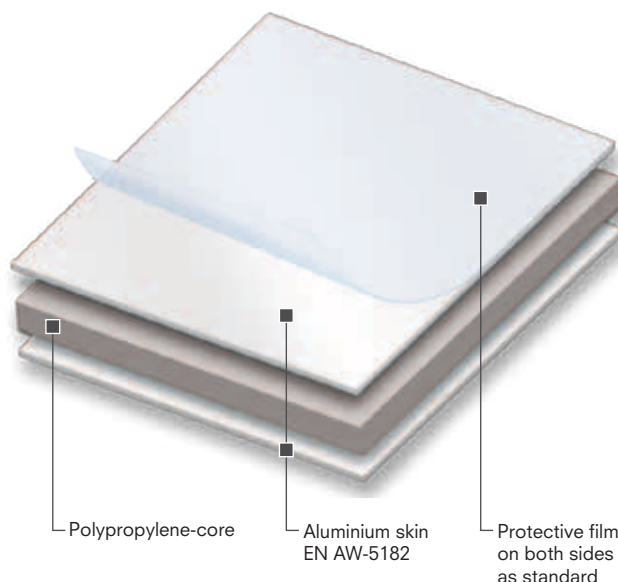
If you require any advice regarding tools and equipment or would like hints about how to achieve optimal processing results, please feel free to get in touch. We are happy to be of help.

HYLITE®

PRODUCT RANGE

Colour	■ Aluminium-Look	
Panel thickness	1,2 mm	2,0 mm
Skin thickness	0,2 mm	0,2 mm
Standard formats (WxL)	1540 x 3000 mm	1540 x 3000 mm

HYLITE® is available in a variety of different thicknesses and dimensions. The above formats are standard formats ex works. Customised formats on request.



PRODUCT FEATURES

Panel thickness	1.2 mm	2.0 mm
Surface	clear lacquer / mill finish	
Panel weight	1.8 kg/m ²	2.5 kg/m ²
Modulus of elasticity	70.000 N/mm ²	
Flexural strength	80 kNcm ² /m	230 kNcm ² /m
Acoustic properties	noise suppression composite	
Service temperature	-30 bis +120°C / short term up to +150°C	
Powder- or dip coating	possible	
Yield strength	≥ 320 N/mm ²	
Tensile strength	≥ 380 N/mm ²	
Ultimate elongation	4 %	

APPROVALS UND FIRE CLASSIFICATION

Railway vehicles		
DIN 5510 (DIN 54837)	Germany	S4 / SR2 / ST1
DIN 5510 (DIN 53438)	Germany	K1
EN 45545 (DIN 5510-2, appendix C)	EU	CIT 4min = 0,005 CIT 8min = 0,011
EN 45545 (ISO 5659-2)	EU	Ds 4min = 0 / Ds max = 0,1
Shipbuilding		
MED approval (wheel: EG-type-examination certificate) US Coast Guard approval	EU US	Module B and D Flame resistant surface materials and floor covering with low flame spread characteristics



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