

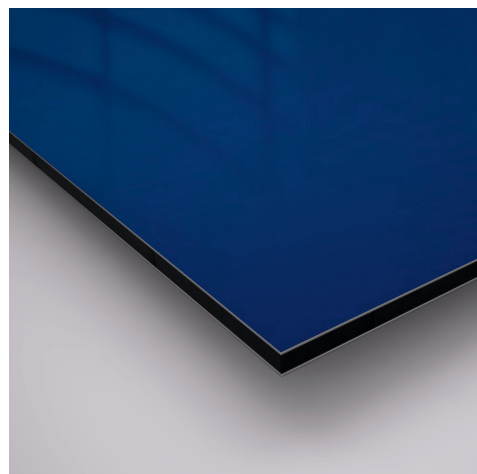
# Technical data

**CODE:****PRODUCT:**

ACPas 0,2; 0,25; 0,3 mm

**NOTE:**

TECHNICAL DATA

**IMAGE:****LAST UPDATE:**

7/2021

# ALUMINIUM COMPOSITE PANEL

## Characteristics

- Cover sheets in AlMg1 alloy
- Lightweight – high rigidity
- Very high resistance to weathering and corrosion UV-resistant black core
- Weather resistant – applicable with temperatures between - 30°C up to + 70°C
- Easy to process – also three-dimensional
- Wide range of colours and formats – up to 1500 mm width
- For interior applications
- Sustainable material mix – 100% recyclable
- Sustainable aluminum coil - 70% made from recycled products

## Processing

- Digital printing | Screen printing
- Laminating
- Lacquering
- Contour milling
- Water jet cutting
- Shearing | Sawing | Die cutting | Glueing
- Drilling | Riveting | Screwing | Welding
- Folding (V-groove) | 3D
- Cold bending | Cold folding
- Engraving (laser / graver)

## Applications

- Creative work
- Decorative lighting
- Digital printing
- Displays (POS/POP)
- Exhibition design
- Furniture
- Exterior/ Interior design
- Lettering
- Partitions
- Screen printing
- Shop design | shop fitting
- Signage
- Corporate ID
- Commercial projects
- Government&Health care facilities
- Outdoor advertising
- Way finding/Street signage

ACPas production site is certified according to DIN EN ISO 14001, which establishes globally recognized requirements for environmental management. Furthermore, a strong linkage of management systems for quality (DIN EN ISO 9001), workplace safety (DIN ISO 45001) and energy management (DIN EN ISO 50001) is a key point in our corporate philosophy.



ACPas has Occupational Health and Safety Management Certification (OHSAS18001) and UL Certification (USR, CNR - Structural Panels, Aluminum Composite Panels Model Signbond with thickness of 3 mm, 4 mm and 6 mm with certification number of 4789279442-E513732).

Thicknesses and weight					
Panel thickness	mm		3	4	6
Thickness of aluminium layer	mm		0,20 - 0,25 - 0,30		
Weight	kg/m <sup>2</sup>	2,9	3,8	4,75	6,6
<b>Core</b>					
Polymethylene, type LDPE	g/cm <sup>3</sup>	0,98			
<b>Surface</b>					
Lacquering		Modified - Polyester - Coating			
Gloss (initial value)	%	25 - 85			
<b>Mechanical properties</b>					
Section modulus (W)	cm <sup>3</sup> /m	0,5	0,8	1,1	1,7
Rigidity (E-I)	kNcm <sup>2</sup> /m	345	865	1620	3840
Alloy of aluminium layer		EN AW-3105A (AlMg1), H46 accorg EN 485-2			
Modulus of elasticity	N/mm <sup>2</sup>	70'000			
Tensile strength of aluminium	N/mm <sup>2</sup>	Rm 145 - 185			
Proof stress	N/mm <sup>2</sup>	Rp0,2 110 - 175			
Elongation	%	A50 ≥ 3			
Linear thermal expansion		2,4 mm/m at 100°C temperature difference			
<b>Acoustical properties</b>					
Sound absorption factor (as)		0,05			
Sound transmission loss (Rw)	dB	23	24	25	26
Loss Factor (d)		0,0048	0,0057	0,0072	0,0102
<b>Thermal properties</b>					
Thermal resistance	m <sup>2</sup> K/W	0,0047	0,0080	0,0113	0,0180
Thermal transmission Coefficient (k)	W/m <sup>2</sup> K	5,72	5,61	5,50	5,30
Temperature resistance	°C	(- 30) ... (+ 70)			

Standard products: 1 250 x 3 050/ 1 500 x 3 050

Sizes / Thickness				
Panel Thickness (mm)	3	4	5	6
Skin Thickness (mm)	0,2	0,2	0,2	0,2
Weight (Kg/m <sup>2</sup> )	3,5	4,5	5,4	6,3
1 000 mm x 2 015 mm	✓	✓	✓	✓
1 000 mm x 2 440 mm	✓	✓	✓	✓
1 000 mm x 2 050 mm	✓	✓	✓	✓
1 000 mm x 3 050 mm	✓	✓	✓	✓
1 220 mm x 2 440 mm	✓	✓	✓	✓
1 220 mm x 3 050 mm	✓	✓	✓	✓
1 250 mm x 2 500 mm	✓	✓	✓	✓
1 250 mm x 3 050 mm	✓	✓	✓	✓
1 500 mm x 3 050 mm	✓	✓	✓	✓
1 500 mm x 4 050 mm	✓	✓	✓	✓
1 525 mm x 3 050 mm	✓	✓	✓	✓

Dimensional tolerances	
Panel Thickness (mm)	(+/- 0,2)
Width (mm)	(-0 to +2)
Length (mm)	(-0 to +3)
Diagonal	(-0 to +5)
Thermal Expansion	2,4 mm/m at 100°C Temp Difference
Aluminium Thickness	As specified in EN485-4

Surface properties	
Paint Thickness	20
Pencil Hardness	2H
Toughness of Coating	3T
Temperature Resistance	(-30 / +90°C)
Impact Strenght (kg/cm <sup>2</sup> )	
Boiling Water Resistance	Boiling for 2 hrs without change
Acid Resistance	Surface immersed in 2% NaCl engine oil for 24 hours without change
Alkali Resistance	Surface immersed in NaHO engine oil for 24 hours without change
Oil Resistance	Surface immersed in 20# engine oil for 24 hrs without change
Solvent Resistance	Cleaned 100 times with Dimethylbenzene without change
Cleaning Resistance	1000 times without change with pressurized water spray or IPA with a clean cloth can also useable
Peel Strenght	>5 Newton/mm

## STANDARD COLORS

ACPas bond is specifically developed as composite panel implementations for signage industry. With individual project creations, ACPas bond offers endless options through its creative colour schemes. From traditional to trendy colors, all options are available in different surface combinations. The coil we use is produced from 70 - 80% recycled aluminum. This means our products are environment friendly. Warranty period is 5 years for exterior usage. All standard colors are available for matt (30 - 40 gloss) and high gloss (70 - 80 gloss) values. Regarding to your for your project requirements, please be informed about gloss offerings by your sales person.

SB 032 / RAL 9006 White Aluminium (Silver)	SB 033 / RAL 9003 Pure white	SB 034 / RAL 9005 Jet black	SB 035 / RAL 3020 Traffic red	SB 036 / RAL 5002 Ultramarine blue	SB 037 / RAL 6005 Moss green	SB 038 / RAL 1023 Traffic yellow

## METALIC COLORS SPECIAL COLORS



SB 001  
Silver

Available in colour options e.g. RAL or PANTONE colour systems or your custom colour, and in a wide range of gloss levels. From low gloss (> 10 GU) to high-gloss (<= 95 GU) | GU = Gloss Unit

## BRUSHED & MIRROR COLORS

The eye-catching brushed aluminum effect is elegantly preferred for areas such as stores, furnitures, POS / POP and advertising applications. ACPas bond Brushed Colors are suitable for interior or exterior use with flat or three-dimensionally shaped such as routing, folding, bending and roll-bending.

Elegant selection of brushed colours: gold, steel, bronz and black.

If demanded, digital printable brushed surfaces can be supplied for orders, exceeding min. order quantity level.

While ACPas bond mirror surfaces are giving you an impression of a real mirror, they also carry th advantage of being light weight and unbreakable. Mirror color creates more light, space and transparency in interior spaces which feel small or cramped (boutiques, hotels, restaurants and others). It is also ideal for the safety concerned areas as exhibition stand designs and in public areas.

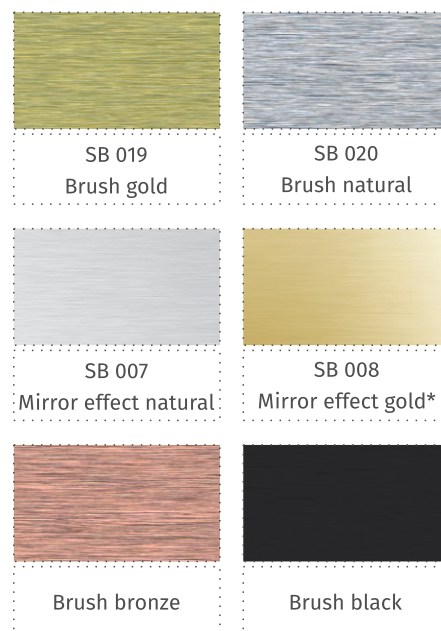
With direct digital printing and laser engraving, it is suitable for advertising messages.

All ACPas bond processing qualities are available for Mirror Colors.

The mirrored effect can be seen in gold and natural bases.

**The warranty period is 2 years for exterior usage.**

**\*Mirror effect products are advised for interior applications only.**



## ACPas DIGITAL

ACPas Digital Printable is specifically developed for viscom industry.

It is suitable for direct digital printing on flatbed printers.

The print trials in cooperation with leading printing machine manufacturers have produced perfect results.

ACPas Digital Printable is UV-resistant and temperature resistant up to 80°C, meaning the sheet is not only suitable for external applications but it is ideal both in internal and external applications, for shop windows, advertising boards and high-class advertising campaign signage, for exhibitions and event marketing.

ACPas Digital Printable with 0.2 mm aluminium layers, making it ideal for flat applications.

The warranty period is 2 years for exterior usage.

ACPas Digital color is available for matt (30-40 gloss) and high gloss (70-80 gloss) values. Regarding to your for your project requirements, please be informed about gloss offerings by your sales person.

RAL 9003 Digital white	
Paint Thickness	20
Pencil Hardness	F-4H
Toughness of Coating	3T
Temperature Resistance	(-30 / +90°C)
Solvent Resistance	MEK > 100
Peel Strenght	> 4 Joule
Gloss	20-95
Boiling Water Resistance	Boiling for 2 hours without damage
Oil Resistance	Surface immersed in 20 engine oil for 24 hours without change
Cleaning Resistance	1000 times without change with pressurized water spray or IPA with a clean cloth can also useable.
Lacquering gloss	(Initial Value) Modified Polyester Coating 20-95%

### CHARACTERISTICS

- Cover sheets in AlMg1 alloy
- Lightweight – high rigidity
- Very high resistance to weathering and corrosion
- UV-resistant black/white core
- Weather resistant – applicable with temperatures between -50°C up to +80°C
- Easy to process – also three-dimensional
- Wide range of colours and formats – up to 2050 mm width
- For interior and exterior applications
- Sustainable material mix – 100% recyclable
- Sustainable aluminum coil - %70 made from recycled products

### PROCESSING

- Digital printing | Screen printing
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### APPLICATIONS

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