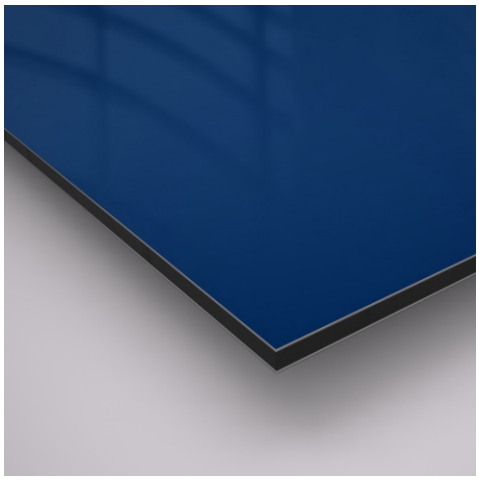
obchod@dencop.cz | +420 571 894 000
export@dencop.cz | +420 571 894 001

Technical data

CODE:	
PRODUCT:	ACPas 0,4; 0,5 mm
NOTE:	TECHNICAL DATA
IMAGE:	
LAST UPDATE:	8/2021

ALUMINIUM COMPOSITE PANEL

Advantages

- It provides an elegant appearance due to its aesthetic and even surfaced structure.
- It is easy to use. It is possible to form the sheet according to desires and acquire the sheets in the desired dimensions.
- It can be supplied in various dimensions and colours.
- It is durable. It is a robust, light and rigid material.
- It is protective. It protects the surface it covers thanks to its resistance to the climatic conditions.
- It has a low coefficient of heat and noise transfer.
- It is economical. Provides full protection for a low price.
- It helps your creativity with its ease of forming, various colour alternatives and durability.
- Gives the best results in application.

Color options

Aluminum composite panel products; can be produced in every color depending on the order amount. ACPas brand offers a wide range of options, including solid colors, metallic colors, wood colors, brush colors and prestige colors.

Fire classification

With a wide range of different dimensions and colors; conventional, low-intensity aluminium composite panels with polyethylene filling, and fire-resistant aluminium composite panels with aluminium hydroxide filling are produced in the facility which is equipped by advanced technology.
Composite panels are produced in the highest international construction sector requirements in accordance with TS EN 13501 standard, by using high quality PVDF painted aluminium coil and LDPE resin, Al(OH) 3 aluminium hydroxide and mineral filling raw materials that are used in B2, B2, A2 classified products.

Guarantee

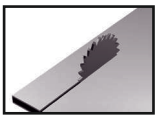
All products are tested by quality engineers at the state-of-the-art laboratories, and presented to clients in accordance with international quality standards. With a wide range of products, Naturalbond provides its clients significant benefits that include all aesthetic, physical and mechanical properties in world standards for interior and exterior building facades having up to 20 years guarantee depending on its paint type, thickness and design type.

Important

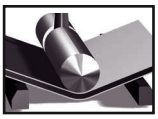
- To ensure the color consistency, placing total requirement in one order is recommended.
- Please applicate all the panels the arrow direction.
- Placing an order consist of different panel widths like 1250mm, 1500mm which will be used in the same project, please contact our sales representative.

General features

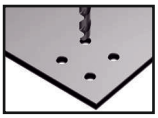
Process



CUTTING
Cutting can be made through saw or fret saw.
Opening grooves: For 90 degrees of corner return, it should be notched by a notching blade of 110 degrees as recommended. While notching, a nucleus part of 0,2 - 0,4mm is required to be left in the outer part.

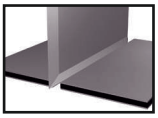


BENDING
This process can be made by brake pressure device and folding table. For 3 mm and 4 mm, minimum bending radius is 40 mm for single, 50 mm for parallel; for 6 mm, minimum bending radius is 55 mm for single, 80 mm for parallel.



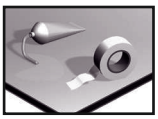
BORING
This process is to be made with twisted drill.

CONTOUR
This process is to be made by fret saw, contour saw and milling.



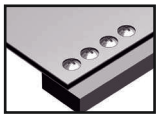
HEWING
This process is to be made with guillotine.

BORING
This process is to be made by boring machine.



STICKING
This process can be made by metal sticking.

RIVETING
This process can be made by rivet.



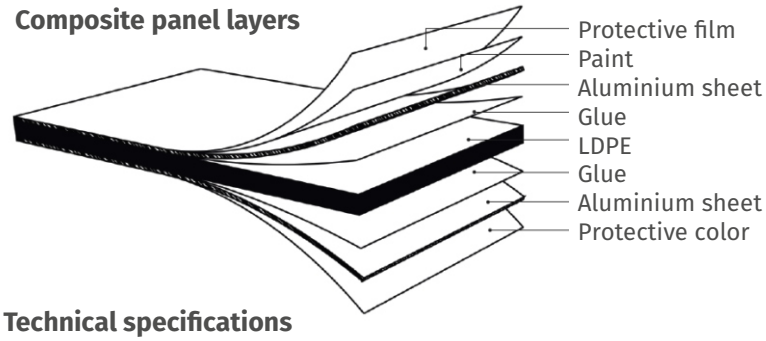
SCREWING
This process can be made by metal screws.

WELDING
This process can be made by hot air welding.

COUPLING
This process can be made with corner assembling profiles.

B2 (50+50) Aluminium top sheet thickness 0,5 mm / Aluminium bottom sheet thickness 0,5 mm

Composite panel layers



Types of products

Com. panel thickness	3 mm - 6 mm (EN 485-4)
Com. panel width	1 250 mm, 1 500 mm
Max. production length	6 000 mm
Standard production measurement	1 250 x 3 200 mm 1 500 x 3 200 mm

Technical specifications

For standard 4 mm thick ACPas 50+50 composite panel:

Sheet alloy - condition	EN AW-3105 / H46
Aluminium sheet thickness	Top sheet - 0,5 mm (± 0,02 mm) Bottom sheet - 0,5 mm (± 0,02 mm)
Total thickness	4 mm (± 0,2 mm)
Filling	Depending on the flammability class - thickness: 3 mm
Top sheet coating	Paint (20 + 5 micron)
Bottom sheet	Polyester based protective paint

Tolerances on production

Com. panel thickness	± 0,2 mm
Com. panel width	- 0 mm / + 2,0 mm
Com. panel length	- 0 mm / + 4,0 mm
Diagonal difference	max 3,0 mm
Linearity (width and length)	± 0,2 mm
Inclination	max 5 mm (panel length < 1 500 mm) max 7 mm (panel length < 1 500 mm - 3 000 mm)

Non - flammability class

Product name	Filling material	DIN 4102 Flammability class	TS EN 13501-1 Flamm. class
ACPas 50+50	LDPE	B2	D - s1, d0
ACPas 50+50	LDPE - AL(OH)	B1 (FR)	B - s1, d1
ACPas 50+50	Mineral core	A2	A2 - s1, d0

Risk table for panel deformation

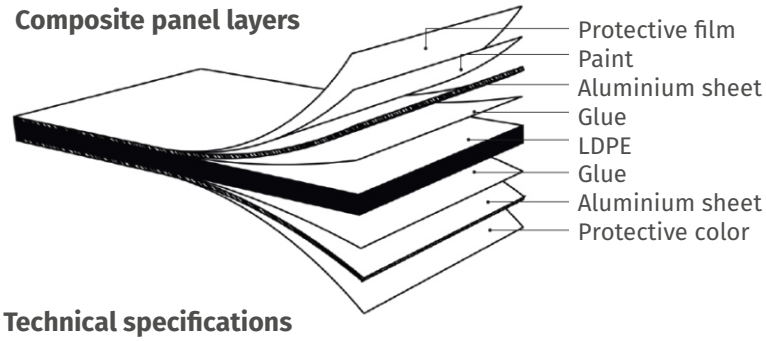
Wind load (Kpa)	length / width	Panel dimensions (mm) 600	900	1 200	1 500	1 800	2 100	2 400	2 700	3 000
51	900	11%	19%	24%	26%	27%	27%	28%	28%	28%
	1 200	21%	41%	51%	57%	61%	63%	66%	67%	69%
	1 500	38%	69%	84%	92%	97%	100%	103%	105%	107%
102	900	22%	36%	43%	47%	49%	51%	52%	52%	53%
	1 200	44%	46%	83%	89%	95%	98%	102%	104%	106%
	1 500	79%	115%	129%	135%	140%	144%	147%	150%	152%
151	900	41%	57%	74%	88%	91%	92%	94%	96%	97%
	1 200	62%	74%	96%	107%	109%	111%	111%	111%	112%
	1 500	95%	105%	120%	129%	130%	131%	135%	137%	137%
202	900	44%	63%	71%	77%	82%	85%	88%	89%	90%
	1 200	87%	114%	126%	132%	138%	142%	147%	149%	149%
	1 500	145%	174%	185%	190%	194%	197%	201%	203%	205%
252	900	55%	96%	118%	128%	134%	136%	138%	138%	139%
	1 200	106%	204%	256%	284%	304%	317%	329%	336%	343%
	1 500	189%	347%	422%	458%	483%	500%	517%	527%	535%

Deformation / % of risk

Can be used as ideal
Should be recontrolled. (Static calculation is needed)
Can't be used without reinforcement

B2 (40+40) Aluminium top sheet thickness 0,4 mm / Aluminium bottom sheet thickness 0,4 mm

Composite panel layers



Types of products

Com. panel thickness	3 mm - 6 mm (EN 485-4)
Com. panel width	1 250 mm, 1 500 mm
Max. production length	6 000 mm
Standard production measurement	1 250 x 3 200 mm 1 500 x 3 200 mm

Technical specifications

For standard 4 mm thick ACPas 40+40 composite panel:

Sheet alloy - condition	EN AW-3105 / H46
Aluminium sheet thickness	Top sheet - 0,4 mm (± 0,02 mm) Bottom sheet - 0,4 mm (± 0,02 mm)
Total thickness	4 mm (± 0,2 mm)
Filling	Depending on the flammability class - thickness: 3,2 mm
Top sheet coating	Paint (20 + 5 micron)
Bottom sheet	Polyester based protective paint

Tolerances on production

Com. panel thickness	± 0,2 mm
Com. panel width	- 0 mm / + 2,0 mm
Com. panel length	- 0 mm / + 4,0 mm
Diagonal difference	max 3,0 mm
Linearity (width and length)	± 0,2 mm
Inclination	max 5 mm (panel length < 1 500 mm) max 7 mm (panel length < 1 500 mm - 3 000 mm)

Non - flammability class

Product name	Filling material	DIN 4102 Flammability class	TS EN 13501-1 Flamm. class
ACPas 40+40	LDPE	B2	D - s1, d0
ACPas 40+40	LDPE - AL(OH)	B1 (FR)	B - s1, d1

Risk table for panel deformation

Wind load (Kpa)	length / width	Panel dimensions (mm) 600	900	1 200	1 500	1 800	2 100	2 400	2 700	3 000
51	900	14%	22%	26%	28%	29%	30%	31%	31%	32%
	1 200	28%	42%	47%	50%	53%	55%	56%	57%	58%
	1 500	49%	66%	71%	74%	76%	77%	79%	80%	81%
102	900	28%	44%	51%	56%	59%	60%	62%	63%	63%
	1 200	56%	84%	95%	101%	106%	109%	113%	115%	117%
	1 500	98%	131%	143%	148%	152%	155%	158%	160%	162%
151	900	42%	60%	68%	73%	78%	80%	83%	83%	85%
	1 200	85%	83%	109%	119%	125%	131%	134%	138%	142%
	1 500	136%	165%	174%	186%	193%	202%	208%	211%	214%
202	900	55%	73%	82%	88%	93%	96%	99%	100%	101%
	1 200	105%	129%	139%	145%	150%	153%	157%	159%	162%
	1 500	167%	191%	199%	203%	206%	209%	211%	213%	215%
252	900	84%	120%	137%	147%	156%	161%	165%	167%	169%
	1 200	169%	165%	218%	239%	250%	261%	268%	276%	284%
	1 500	273%	329%	348%	371%	386%	403%	415%	423%	428%

Deformation / % of risk

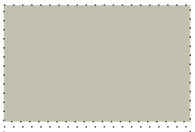
Can be used as ideal
Should be recontrolled. (Static calculation is needed)
Can't be used without reinforcement

SOLID COLORS


NB 901
Pure white


NB 912
Cream white


NB 104
Pearl white


NB 604
Grey green

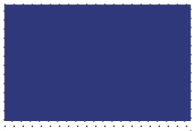

NB 101
Ivory sand


NB 107
Grey beige


NB 381
Pale brown


NB 382
Soil brown


NB 505
Gentian blue


NB 503
Ultramarine blue


NB 504
Steel blue


NB 701
Platinium grey


NB 703
Graphite grey


NB 951
Graphite black


NB 304
Erika violet


NB 301
Red brown


NB 302
Traffic red


NB 202
Orange


NB 102
Rape yellow


NB 603
Moss green


NB 203
Pantone orange


NB 704
Smoked grey


NB 705
Antracite grey

METALLIC COLORS


NB 090
Metallic sliver


NB 080
Lys bronze


NB 011
Pearl gold


NB 081
Copper

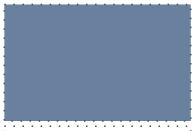

NB 050
Azul blue


NB 702
Metallic dark grey

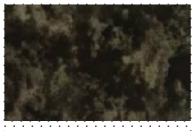

NB 092
Shiny metallic silver


NB 095
Champagne

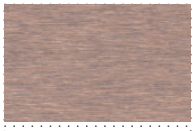
PRESTIGE AND SILVERY COLORS


NB 860
Light blue metallic silver


NB 861
Black metallic


NB 890
Granite black


NB 877
Brush silver


NB 878
Brush copper

SURFACE OPTIONS


NB 905
Nano white

Nano effect can be applied for all solid colors depending on the amount of the order.

WOOD COLORS

NB 901
Pure white

NB 912
Cream white

NB 104
Pearl white

NB 604
Grey green

NB 101
Ivory sand

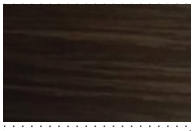
NB 107
Grey beige

NB 381
Pale brown

NB 382
Soil brown

NB 505
Gentian blue

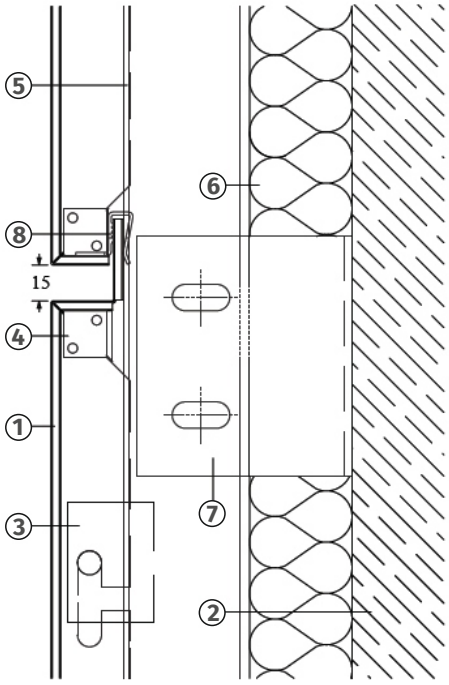
NB 503
Ultramarine blue



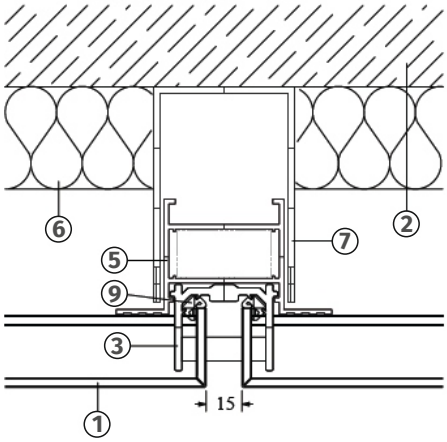
NB 504
Steel blue

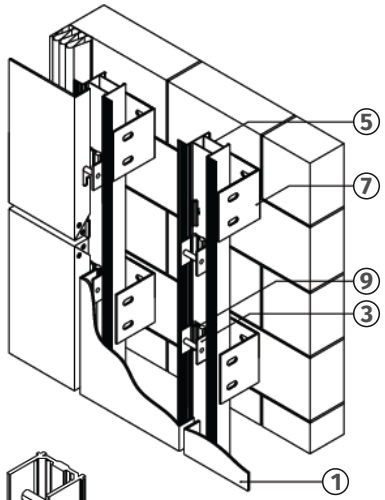
NB 701
Platinium grey

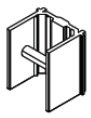
PRODUCT DETAILS



1. *APCas*
2. *CONCRETE*
3. *COMPOSITE CONNECTING ANCHORAGE*
4. *20 x 20 x 1,2 mm ALUMINIUM PROFILE*
5. *ALUMINIUM MULLION PROFILE*
6. *ISOLATION*
7. *ALUMINIUM ANCHORAGE*
8. *ALUMINIUM CONNECTING PROFILE*
9. *EPDM GASKET*







Composite connecting anchorage

Aluminium anchorage