

akustik+ proofire A2



akustik+ proofire A2 complements our product range with non-flammable decorative panels as well as acoustically effective materials for the highest fire protection requirements.

Fire protection plays an increasingly important role, especially in public buildings. Our **akustik+ proofire A2** product range provides non-flammable products that are used as composites certified to fire classification A2-s1, d0 according to DIN EN 13501-1 and approved by building authorities.

All **akustik+ proofire A2** products were combined with micro-CPL, real wood veneer and varnish surfaces as well as smooth and acoustically effective elements (various perforations and slottings). Thus, these panels meet all applicable fire protection requirements and make it possible to fulfill individual wishes for decorative design and optimal room acoustics.

In this sensitive area, too, we offer you a variety of formats and products maximum design freedom.

akustik



Technical data

Availability	Micro CPL, real wood veneers and lacquered surfaces As flat element or with acoustically effectiveness and various perforations and slit pattern
Weight	raw density 1.100kg/m ³ , in real use up to 1.200 Kg/m ³ on panel thicknes 12 to 18mm the standard weight of one panel (2800x1260mm) is between 13 and 22 Kg/m ²
Torsion behaviour	less torsion than MDF/Chipboard (when symetrical built) lenght differences on temperature changes: <0,02mm (mK) lenght differences on changing of relative airhumidity of 30% on 20°C: <0.6mm/m
Edge strenght	little less than wood material panels
Storage and installation	under normal climatical conditions (aproxx. 10°-35°C and 45-75% rel. humidity)
Emissions:	No harm to health, since there are no significant emissions of volatile organic substances or formaldehyde, corresponding certificates are available.
General strenght	surface (brinell): 20 N/mm ² adhesion tensile strenght: 0,6 N/mm ² bending tensile strenght: 4,2 N/mm ² E-Modul: 2200 N/mm ²

Product characteristics

Material thickness:	12, 16 und 18 mm
Dimension tolerances:	lenght ± 4 mm / width ± 2 mm / thickness ± 0.3 mm
Panel dimensions:	stock program: 2.800 und 2.300 x 1.260mm alternative as half format 2.800 und 2.300 x 625mm => others on request
Building class:	non combustable A2 – s1, d0 acc. DIN EN 13501-1 (tested and certified in compound)
Core material:	gypsum fiber, in wood color similar RAL 1001 (on stock material)
Surfaces	micro CPL, realwood veneer, and lacqued
Edges:	edge production is possible as: - veneered - oiled - lacqueded - real aluminium please consider the data of the machine and glue producers

Emissions and construction biology

Cancerogene*	after 3 and 28 days	not detectable
TVOC***	after 3 and 28 days	below assessment limit
SVOC****	after 28 days	below assessment limit
VOC**-substances R	after 28 days	below assessment limit
VOC**-substances without NIK-value	after 28 days	below assessment limit
Formaldehyd	after 28 days	below assessment limit

* Cancerogene = carcinogenic substances ** VOC = volatile organic substances
 *** TVOC = sum of volatile organic substances **** SVOC = sum of less volatile organic substances

Classification

The individual produced non - flammable composite panels with all surface finishes meet the requirements of DIN EN 13501-1.

The classification as A2-s1.d0 is indicated by the following classification reports, Issued by the MPA Dresden, confirms:

- akustik+ proofire laminate: Nr. 2011-B-4616/01
- akustik+ proofire veneer: Nr. 2011-B-4616/02
- akustik+ proofire paint: Nr. 2011-B-4616/03

Certification

With the granting of the general building authority approval the usage in the sense of the state building regulations is approved.

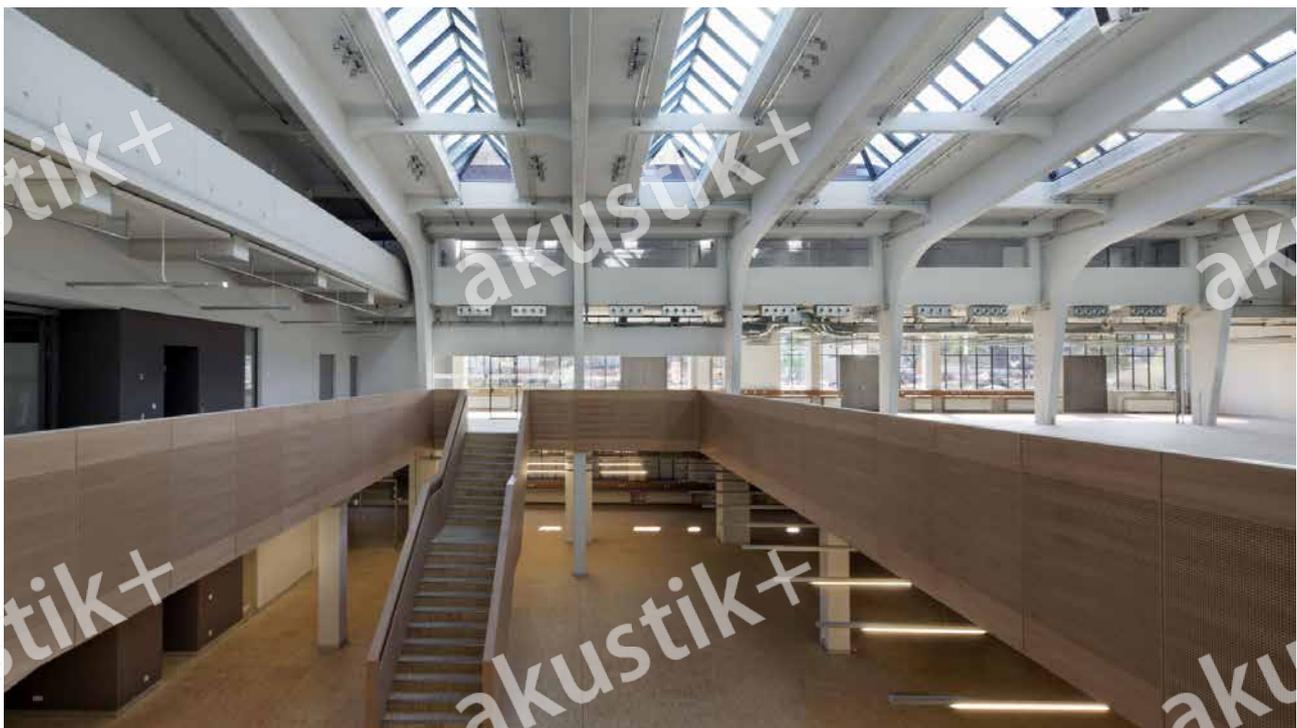
- akustik+ proofire laminate: Z-56.424-962
- akustik+ proofire veneer: Z-56.424-963

The fire behavior of this construction product is combined with following characteristics:

A2: classifies the fire behavior

S1: the **S** stands for smoke and gives the extra classification with respect to smoke development. the number **1** stands for: no / hardly smoke development.

d0: the **d** stands for droplets and gives the additional classification for burning, dropping. The **0** stands for: no droplets.



Surfaces

The surface texture of the composite panel is determined by the mineral content of the carrier plate as well as the use of thin micro-laminates, veneers or lacquer. Without a special pretreatment of the carrier plate (calibration) small unevenness can occur in the surface, e.g. in perceptible light the small blanks are not to be avoided by production technology and are not a defect.

We therefore differentiate 3 execution qualities:

AA surface

High quality surface finish, with a melamine resin coated chipboard comparable

A surface

Surface finish with small irregularities

B surface

backing layer without surface requirements

The A2 composite panels available from stock are standard with a high-quality A-surface on the front and a B surface on the back.

The panels are marked accordingly so that the respective surface can be clearly identified. Other surface combinations are also available on request.

As a result of production processes A2 decorative surfaces, compared to other surface coated wood materials, can vary in colore tone and structure.



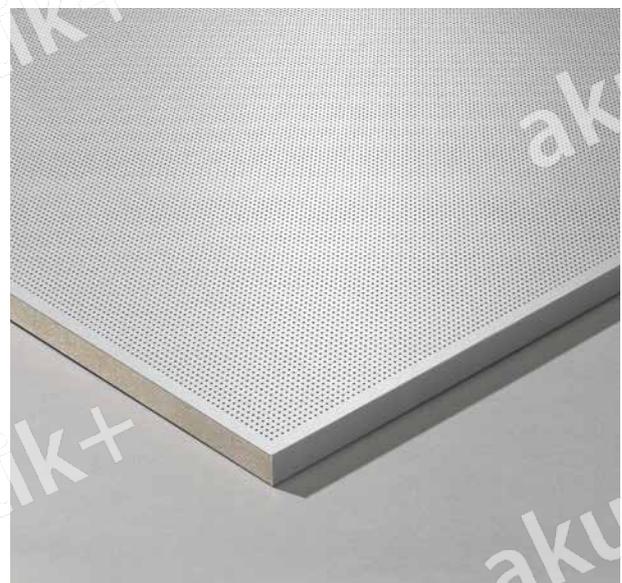
Made to order

For the manufacture of certified A2 products, it is to ensure that the edges are made to the required fire classification, that means either lacquered, veneered, oiled or with real aluminum edges.

The use of ABS or other thermoplastics edges are not allowed.

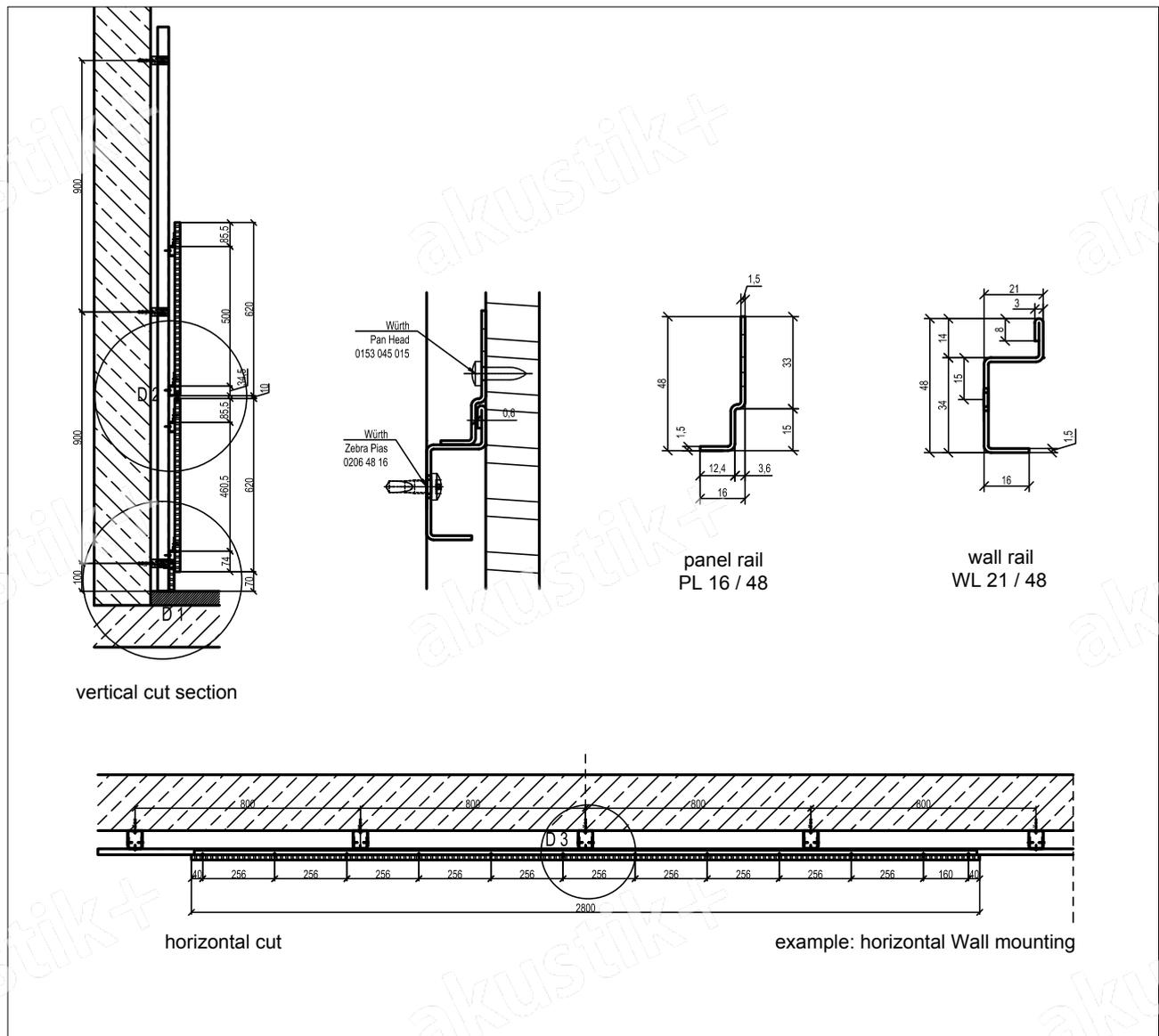
The core material is in the standard version in a slight brown tone, which harmonises with most Veneers and wood decorations.

Therefore it is possible to renounce to an edgebanding but nevertheless obtain an aesthetically high-quality edge design.



Installation

Subconstruction:	common subconstruction from non combustable materials are usable Recommendation: akustik+ Wall system A1, not visibel, consists of - Panel rail PL16/48 - Wall rail WL21/48
Hook in system:	metal wall system for not visibel hook in of wall panels for the following described elements
Installation of Panels rails to the panels	by screw connection screw type: Würth ASSY 4,5 mm, Artikel Nr. 01533 045 015
Panel rails	zinc plated sheet metal profile PL16/48 for fixing on panel rear side and for hook in in Wall rail WL 21/48, part-no. 4Z16PL (we recommend an additional construction glue) max. distance between panel rails: 600mm (ctr/ctr)
Wall rails	zinc plated sheet metal profile WL21/48 for fixing to Knauf UA profile 50/40/2 Part-no. 4Z21WL
Static certificate Wall System acc. DIN 1055	mB building static S011 2013.021 mB building static S730 2013.021



Acoustically effective fire protection products

Based on the A2 composite panels, we are able to use these elements also in the form of perforated or slotted A2 acoustic products. Of course the acoustic products were tested for their fire behavior, classified and approved and can be used in selected perforations and slots with the classification A2 - s1, D0 (as connecting elements according to DIN EN 13501-1).

akustik+ proofire A2 perforation

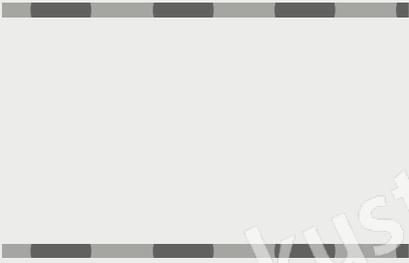
Perforation ¹⁾	Image in scale 1:1	open surface [%] no of holes (pcs/m ²)
4/4/1,5		11,0 % 62.500 pcs/m ²
5,3/5,3/1,5 5,3/5,3/2,0		6,2 % 11,1 % 35.200 pcs/m ²
6,4/6,4/2,0 6,4/6,4/3,0		7,7 % 17,3 % 24.414 pcs/m ²
8/8/2,0 8/8/3,0		4,9 % 11,0 % 15.625 pcs/m ²
10,6/10,6/3,0 10,6/10,6/4,0		6,2 % 11,1 % 8.800 pcs/m ²
16/16/5,0		7,7 % 3.906 pcs/m ²
32/32/6,0		2,8 % 976 pcs/m ²

¹⁾ Explanation: Perforation on the example 4 / 4 / 1.5 = 4 mm horizontal and 4 mm vertical from the hole ctr/ctr, with a hole diameter of 1.5 mm

Also the customers often desired slits can be produced as an optical alternative to classical perforations in the Fire protection area.

The sound absorption values of the perforated or slotted panels depend on the respective installation situation. Please refer to our product documentation for this topic. We will be happy to send you the right data sheets your needs.

akustik+ proofire A2 linear

Slotting ¹⁾	Image in scale 1:1	Open surface [%] no of holes (pcs/m ²)
Linear 16 16,0/2,0 16,0/3,0		6,2 % 9,3 %
Linear 32 32,0/2,0 32,0/3,0		3,0 % 4,5 %

¹⁾ Explanation: Slit in the example 16.0 / 2.0 = **16 mm** Distance from groove ctr/ctr / **2.0 mm** Groove width.



akustik+ proofire A2 perforation



akustik+ proofire A2 linear

