



Flat, sound absorbing and thermal insulating plate

AKOTHERM BASIC

Akotherm is a sound-absorbent and thermally insulating polyester wool product made of polyester fibres. Akotherm is an excellent alternative for glass wool and rock wool. Contact with polyester fibres entails no threat of allergic reactions, skin irritation or breathing problems.

Akotherm is inherently flame-retardant and resistant to many chemical substances, mould and pests. An additional advantage is that Akotherm is extremely stable and elastic. As a result, when subjected to vibration when used in the walls of ships or vehicles, for example. Akotherm does not have the tendency to collapse in upon itself. Akotherm is available with or without a selfadhesive bonding layer.

APPLICATIONS

In addition to being friendly for humans and the environment, Akotherm is also technically outstanding. Due to its excellent sound-absorbent and thermally insulating characteristics, Akotherm is widely used in industrial and construction applications. Other application areas include:

- Ship and yacht construction
- Vehicles
- Machine and equipment fabrication
- Radiant cooling ceilings
- Ventilation units
- Office Furniture
- Interior construction

The Deutsches Institut für Bautechnik has approved the material for use in the construction industry. Approval number: Z-23.1.3-278.

SOUND ABSORPTION

- D20/50 mm: NRC = 0,75; $\alpha_w = 0,75$ (Absorption class C)
 - D40/50 mm: NRC = 0,90; $\alpha_w = 0,85$ (Absorption class B)
 - D20/100 mm: NRC = 1,05; $\alpha_w = 1,00$ (Absorption class A)
- NRC en α_w -values of other thicknesses available on request.

The sound absorption is shown in the chart. The absorption values are measured according to EN 354: 2003. D20/20 = density 20 kg/m and thickness 20 mm.

FIRE-CLASSIFICATION

- EN 13501-1: 2002 fire class B, smoke number S2, drip figure Do. Report nr: 2006 - Efectis - Ro690
 - DIN 4102 B1
- This means that this material is permitted to be used in escape routes and other areas.

PROPERTIES

- Fireproof and heat resistant
- Sound Absorbing
- Thermal insulating
- Dimensionally stable and resilient
- Anti-allergic

APPLICATIONS

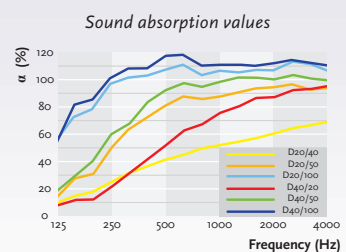
- Yacht construction
- Vehicles
- Machine and equipment fabrication
- Interior construction
- Office Furniture



FIRE CLASSIFICATION
EN - 13501-1 class B



SOUND ABSORPTION
Up to absorption class A



MERFORD

DIMENSIONS

LxW = 1200 x 1000 mm

- Other sizes, shapes and thicknesses on request (minimum order).
- Maximum size 4800 x 2000 mm.
- Also available on roll.

WEIGHT

Standard density: 20 kg/m³.

Other densities (of 15 to 80 kg/m³) available upon request.

SHAPE, APPEARANCE AND COLOUR

Flat plate with straight edges. On request also available on roll. Akotherm is available in white or black. On request also with a top layer in color.

OPTIONS

- Water- and oil-resistant top layer composed of polyester fibres (PU).
- Heat-reflective aluminium top layer.
- Decorative top layer (including. PP skin) in color.
- Available with or without selfadhesive backing.

COMPOSITION

Akotherm Basic is made of polyester fibres, 60% of the fibres are derived from recycling (PET bottles). Contains no poisons or substances suspected of being toxic. Tested in accordance with Öko-Tex standard 100, report no. 94.0.0541.

RESISTANCE TO LIQUIDS

- Resistant to cleaning agents, water, oil, fuels.
- Not resistant to liquids with a pH value > 11, such as concrete water.
- Moisture absorption Um 1.02% DIN 52620.

RESISTANCE TO SUBSTANCES

- Resistant to many chemical substances, moulds and pests.
- Resistant to UV radiation.

TEMPERATURE RESISTANCE

Akotherm is resistant to temperatures from -30 °C to 120 °C.

THERMAL INSULATION

According to DIN52612:

Type D15: $\lambda = 0,045 \text{ W / m}\cdot\text{K}$.

Type D20: $\lambda = 0,040 \text{ W / m}\cdot\text{K}$.

Type D40: $\lambda = 0,035 \text{ W / m}\cdot\text{K}$.

INSTALLATION

- You can cut Akotherm to size with a sharp knife, scissors, a hot-wire, a special Ako-therm knife or a Bosch GSG 300 foam rubber cutter.
- The non-adhesive version is attached to the substrate with MKD 200 or Iso Safeglu.
- The self-adhesive version adheres extremely well to a smooth, oil-free surface.
- For application of the self-adhesive variant on a rough surface you must first perform an adhesion test and, if necessary, prime the surface with Soundcoll MT before installation.

CUSTOM SOLUTIONS

We can manufacture Akotherm in any desired size or shape, including any cut-aways with our water jet cutter or punching machine. The added costs are returned by faster and simpler installation. Ask us for options and prices!



Akotherm in a van

TOLERANCES

Cutting tolerance: +/- 10 mm ca. max.

Thickness tolerance: +/- 10% ca. max.

Material tolerance: None.

On request, Akotherm can be cut using CNC technology for orders involving more than 100 m² and at additional cost (Cutting tolerance: +/- 2 mm ca. max.).

DISCLAIMER

The recommendations and information listed in this product sheet are shown as complete and accurate as possible, but offer no guarantees. Check with one of our specialists or visit our website.

