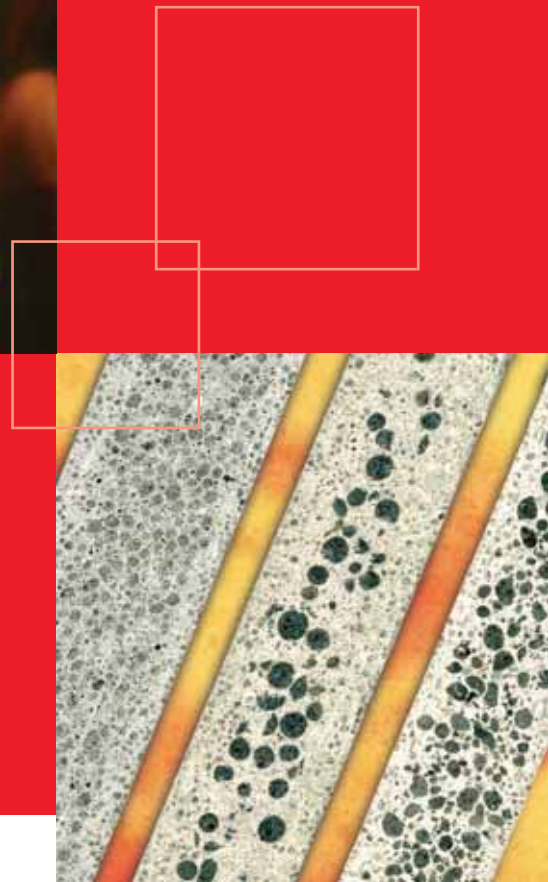


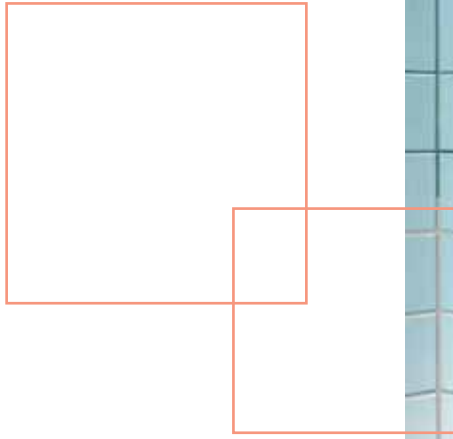
**fermacell**<sup>®</sup>  
AESTUVER



AESTUVER

**Fire protection  
and building board  
applications in industry**





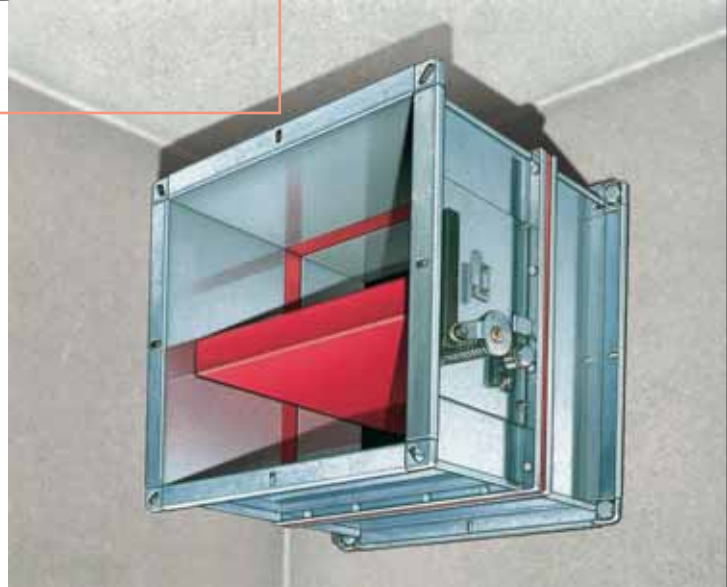
**Insulation inserts for fire protection barriers in rail-bound conveyor systems**



**Mounting boards for wall-mounted installation elements**

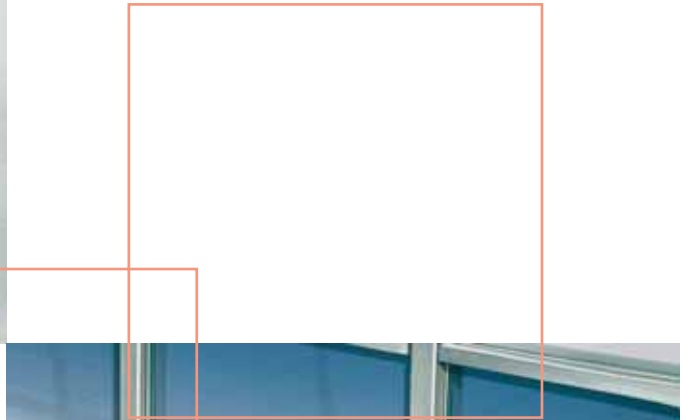


**Damper plates for fire dampers**





**Insulation inserts for fire doors and gates made from steel and timber**



**Insulation inserts for fire protection parapet elements and profile systems**



**AESTUVER system bulkhead modules**  
 - for cable and mixed-system penetration sealing  
 - for pipe penetration sealing in walls and floors made from fireproof materials and in drywalls



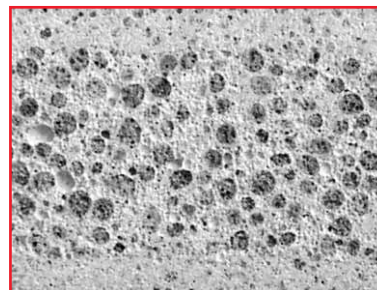
**AESTUVER system coatings**  
 - for fire-resistant coating of steel and timber elements



**AESTUVER system joints**  
 - for fire-resistant jointing in walls and floors made from masonry or concrete units or from aerated-concrete building boards

# Fire-resistant boards

## Technical data



### AESTUVER fire-resistant boards

Properties	Single-layer board	Sandwich board
Material	Glass-fibre reinforced light-weight concrete	
Building material class	A1, non-combustible in compliance with DIN 4102, Part 1, DIN EN 13501-1	
Standard board sizes*, mm	1,250 x 2,600	1,250 x 2,600
Standard board thickness*, mm	8, 10	12, 15, 20, 25, 30, 40, 50, 60
Apparent density (dry)	approx. 980 kg/m <sup>3</sup>	approx. 700 kg/m <sup>3</sup> <sup>1)</sup>
Characteristic thermal conductivity $\lambda_R$	approx. 0.185 W(mK)	approx. 0.147 W(mK)
Equilibrium moisture (20 °C, 65 % RH)	approx. 7 wt %	approx. 7 wt %
Moisture content change (20 °C, 35 %–95 % RH)	± 5 wt %	± 5 wt %
Length/width tolerance of standard boards	± 1 mm	± 1 mm
Thickness tolerance of standard boards	± 1 mm	± 1 mm
Modulus of elasticity E ***	≥ 4,500 N/mm <sup>2</sup>	≥ 3,000 N/mm <sup>2</sup> <sup>1)</sup>
Bending tensile strength ***	≥ 7.5 N/mm <sup>2</sup>	≥ 3.5 N/mm <sup>2</sup> <sup>1)</sup>
Compressive strength (based on DIN 18555)	approx. 18 N/mm <sup>2</sup>	approx. 9 N/mm <sup>2</sup> <sup>1)</sup>
Alkalinity (pH value)	approx. 12	approx. 12
Pest and mould infestation	AESTUVER fire-resistant boards do not rot or mould and are not susceptible to attack by pests	
Finish	Exposed face: smooth-formed Rear: slightly textured or partially ground	

### AESTUVER fire-resistant boards: weights and dimensions

Board thickness * (mm)	Standard sizes	Apparent density (kg/m <sup>3</sup> ) dry	Board weight (kg/m <sup>2</sup> ) at equilibrium moisture
8	1,250 x 2,600 **	approx. 980	approx. 8
10	1,250 x 2,600 **	approx. 980	approx. 10
12	1,250 x 2,600 **	approx. 780	approx. 10
15	1,250 x 2,600 **	approx. 730	approx. 12
20	1,250 x 2,600 **	approx. 700	approx. 15
25	1,250 x 2,600 **	approx. 690	approx. 18
30	1,250 x 2,600 **	approx. 680	approx. 22
40	1,250 x 2,600 **	approx. 650	approx. 28
50	1,250 x 2,600 **	approx. 650	approx. 34
60	1,250 x 2,600 **	approx. 640	approx. 41

\* Additional board thicknesses and sizes upon request

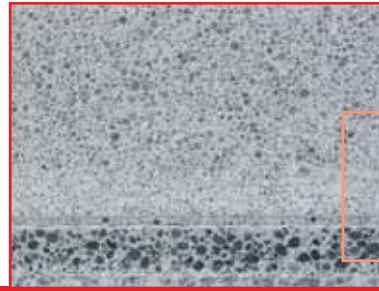
\*\* Size 1,250 x 3,000 mm is also available upon request

\*\*\* Other board thicknesses available upon request

<sup>1)</sup> Value given as example for a 20-mm board

# D+2 fire-resistant elements

## Technical data



### AESTUVER D+2 fire-resistant elements

Properties	
Material	Glass-fibre reinforced light-weight concrete, water- and frost-resistant
Building material class	Non-combustible in compliance with DIN EN 13501-1
Fire resistance class	Fire resistance classes I 90 and E 90 can be achieved. Complete system to be checked on an individual basis. Conventional coatings, up to 0.5 mm thick, do not affect the fire-resistance rating.
Board thickness	52.5 mm ± 2 mm
Equilibrium moisture (20 °C, 65 % RH)	approx. 7 wt %
Moisture content change (20 °C, 35 %–95 % RH)	≤ 5 wt %
Length/width tolerance	± 1 mm
Alkalinity (pH value)	approx. 12
Pest and mould infestation	AESTUVER fire-resistant boards and elements do not rot or mould and are not susceptible to attack by pests
Anti-slip rating (based on BGR 181 and DIN 51130) <sup>11</sup>	Standard elements (without coating): R 10 For element surfaces coated with suitable epoxy-resin based coating system: R 13
Maximum permissible live load	Span = 60 cm      12.5 kN/m <sup>2</sup> Span = 80 cm      7.0 kN/m <sup>2</sup> Span = 95 cm      5.0 kN/m <sup>2</sup> Span = 100 cm     4.5 kN/m <sup>2</sup> Span = 125 cm     2.8 kN/m <sup>2</sup>
Maximum permissible dynamic load <sup>21</sup>	Span = 100 cm; 82 cm jump height Test subject = 100 kg

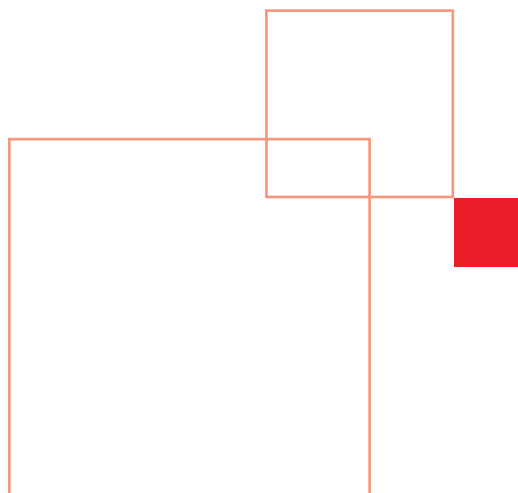
<sup>11</sup> Test certificate issued by BGIA, 200623 753/3210

<sup>21</sup> Assessment report issued by MFPA Leipzig, UB III/B-06-014

### AESTUVER D+2 fire-resistant elements: weights and dimensions

Board thickness (mm)	Standard size (mm) <sup>31</sup>	Element weight (kg/m <sup>2</sup> ) at equilibrium moisture
approx. 52.5	W: max. 1,250 x L: approx. 625	approx. 47

<sup>31</sup> Tailored sizes and other dimensions upon request



# AESTUVER T

## Technical data



### AESTUVER T

Properties	Single-layer board	Sandwich board
Material	Glass-fibre reinforced light-weight concrete, asbestos-free	
Building material class	A1, non-combustible in compliance with DIN 4102, Part 1	
Colour	Concrete grey *	
Standard board thickness **, mm	10	15, 20, 25, 30, 35, 40, 50, 60
Apparent density (dry)	approx. 980 kg/m <sup>3</sup>	690 kg/m <sup>3</sup> <sup>1)</sup>
Equilibrium moisture (20 °C, 65 % RH)	approx. 7 %	approx. 7 %
Moisture content change (20 °C, 35 %-95 % RH)	≤ 5 wt %	≤ 5 wt %
Length/width tolerance of standard boards	± 1 mm	± 1 mm
Thickness tolerance of standard boards	± 1 mm	± 1 mm
Modulus of elasticity E	≥ 4,500 N/mm <sup>2</sup>	≥ 2,000 N/mm <sup>2</sup> <sup>1)</sup>
Bending tensile strength	≥ 7.5 N/mm <sup>2</sup>	≥ 3.5 N/mm <sup>2</sup> <sup>1)</sup>
Compressive strength (based on DIN 18555)	18 N/mm <sup>2</sup>	9 N/mm <sup>2</sup> <sup>1)</sup>
Alkalinity (pH value)	approx. 12	approx. 12
Pest and mould infestation	AESTUVER T does not rot or mould and is not susceptible to attack by pests	
Finish	Exposed face: smooth-formed Rear: slightly textured or partially ground	

<sup>1)</sup> Value given as example for a 25-mm board

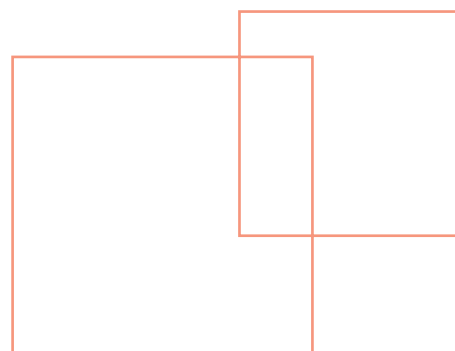
### AESTUVER T: weights and dimensions

Board thickness ** mm	Standard sizes ** mm	Apparent density, dry (kg/m <sup>3</sup> ) (± 5 %)	Board weight (kg/m <sup>2</sup> ) at equilibrium moisture
10	625 x 2,600 ***	980	10
15	625 x 2,600 ***	730	12
20	625 x 2,600 ***	700	15
25	625 x 2,600 ***	690	18
30	625 x 2,600 ***	680	22
35	625 x 2,600 ***	670	26
40	625 x 2,600 ***	650	28
50	625 x 2,600 ***	650	36
60	625 x 2,600 ***	640	41

\* Top layer may be dyed upon request

\*\* Additional board thicknesses and sizes upon request

\*\*\* Sizes up to 1,250 x 3,000 mm available upon request





# Powerpanel H<sub>2</sub>O

## Technical data

Material: cement-bonded light-weight concrete sandwich board, with reinforced outer sheet made from alkali-resistant fibreglass mesh

### Board dimensions (standard sizes)

Length (tailored sizes upon request)	1,000/2,000/2,600/ 3,000 mm
Width (tailored sizes upon request)	1,250 mm
Thickness	12.5 mm
Dimensional tolerance:	length, width: ± 1 mm thickness: ± 0.5 mm

### Apparent density, strength

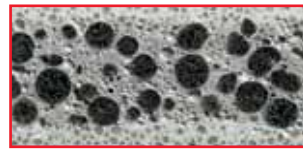
Apparent density	approx. 1,000 kg/m <sup>3</sup>
Weight per unit area	approx. 13 kg/m <sup>2</sup>
Bending tensile strength	≥ 6 N/mm <sup>2</sup>
Compressive strength (compression at right angles to the board plane)	≥ 11.7 N/mm <sup>2</sup>
Bending elastic modulus	approx. 5,500 N/mm <sup>2</sup>

### Additional characteristics

Building material class (according to DIN EN 13501-1)	Non-combustible, A1
Water vapour diffusion resistance $\mu$	56 according to DIN EN 12572
Thermal conductivity $\lambda_{10}$ , dry	0.173 W/(m•K) according to DIN EN 12664
Thermal resistance $\lambda_{10}$ , dry	0.07 (m <sup>2</sup> •K)/W according to DIN EN 12664
Specific thermal capacity $c_p$	1,000 J/(kgK)
Equilibrium moisture (20 °C, 65 % RH)	approx. 5 wt %
Moisture content change (20 °C, 35% - 95% RH)	≤ 3.5 wt %
Alkalinity (pH value)	approx. 10
Finish	Exposed face: Smooth-formed Rear: Slightly corrugated/roughened for calibration
Frost resistant	

### Weight specifications

Board sizes Length x width x thickness mm	Prod. No	Weight/ unit area kg/m <sup>2</sup>	Board weight kg	Pallet weight kg
1,250 x 1,000 x 12.5	75052	≈ 12.5	≈ 16	≈ 805 (50 ea./pal.)
1,250 x 2,000 x 12.5	75049	≈ 12.5	≈ 31	≈ 1,005 (30 ea./pal.)
1,250 x 2,600 x 12.5	75050	≈ 12.5	≈ 41	≈ 1,269 (30 ea./pal.)
1,250 x 3,000 x 12.5	75051	≈ 12.5	≈ 47	≈ 1,456 (30 ea./pal.)



# Powerpanel HD

## Technical data

Material: cement-bonded glass-fibre reinforced sandwich board, with light-weight aggregate made from granulated swelling clay and recycled granulated foam glass

### Board dimensions (standard sizes)

Length (tailored sizes upon request)	2,600/3,000 mm; 1,000 mm
Width (tailored sizes upon request)	1,250 mm
Thickness	15 mm
Dimensional tolerance:	length, width, thickness: ± 1 mm

### Apparent density, strength

Apparent density	approx. 1,000 kg/m <sup>3</sup>
Weight per unit area	approx. 15 kg/m <sup>2</sup>
Bending tensile strength	≥ 3.5 N/mm <sup>2</sup>
Compressive strength (compression at right angles to the board plane)	≥ 6 N/mm <sup>2</sup>
Bending elastic modulus	approx. 4,500 ± 500 N/mm <sup>2</sup>

### Additional characteristics

Building material class (according to DIN EN 13501-1)	Non-combustible, A1
Water vapour diffusion resistance $\mu$	40
Thermal conductivity $\lambda_R$	0.40 W/(m•K)
Coefficient of thermal expansion $\alpha_R$ (temperature range: -20 °C to +75 °C)	11.0 • 10 <sup>-6</sup> 1/K
Equilibrium moisture (20 °C, 65 % RH)	approx. 7 %
Moisture content change (20 °C, 35%–95 % RH)	≤ 5 wt %
Alkalinity	approx. 12
Finish	Exposed face: Smooth-formed Rear: Slightly corrugated/roughened for calibration
Frost resistant	

### Weight specifications

Board sizes Length x width x thickness mm	Prod. No	Weight/ unit area kg/m <sup>2</sup>	Board weight kg	Pallet weight kg
1,000 x 1,250 x 15	75043	≈ 15	≈ 19	≈ 1,267 (60 ea./pal.)
2,600 x 1,250 x 15	75030	≈ 15	≈ 49	≈ 1,660 (30 ea./pal.)
3,000 x 1,250 x 15	75031	≈ 15	≈ 57	≈ 1,915 (30 ea./pal.)

**fermacell<sup>®</sup>**  
**AESTUVER**

**Fermacell GmbH**  
FERMACELL Aestuver  
Ringstraße 20  
D-39240 Calbe/Saale

FERMACELL<sup>®</sup> is a registered trademark and a company of the XELLA Group

Subject to technical modification. Status: 07/2009  
The most recent issue shall have effect.  
Please call us, should you find any information to be  
missing in this issue.

Phone: +49(0)39291 – 48-113  
Fax: +49(0)39291 – 48-119

[www.aestuver.de](http://www.aestuver.de)