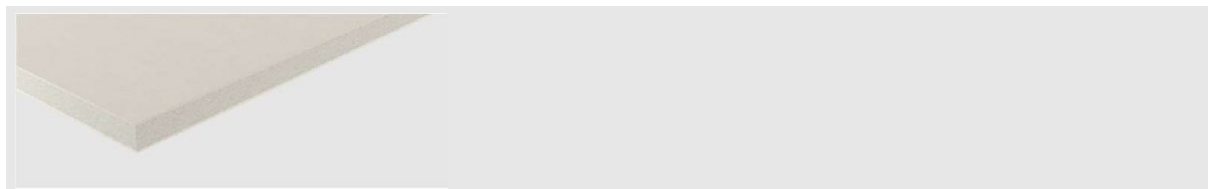


# Aestuver® Tx Fire-protection board

**Cement bonded, fire-resistant glass-fibre reinforced lightweight concrete boards for highest fire protection requirements in underground traffic facilities**



## PRODUCT

Aestuver® Tx fire-protection boards for underground traffic systems are cement-bound, glass-fibre reinforced lightweight concrete boards for structural fire protection. The non-combustible, purely mineral fire protection boards comply with building material class A1 according to EN 13501-1.

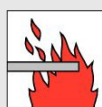
## APPLICATION

Aestuver® Tx fire-protection boards can be used universally, but thanks to their proven properties, they are applicable in areas with constant or recurring moisture and frost exposure and/or high mechanical stresses

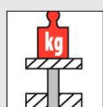
- As screwed or anchored cladding of the structural concrete to protect it against the consequences of fire exposure
- Enables slim system structures for: RWS180, RWS120, HCM120, ISO240 / NFPA 290



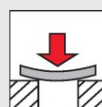
## CHARACTERISTICS



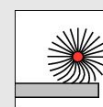
non-combustible



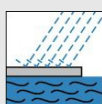
high compressive strength



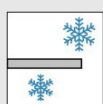
high bending tensile strength



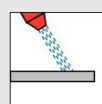
high abrasion resistance



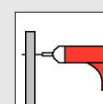
water resistance



frost-resistance



cleanable



easy to apply

## SPECIFICATION AND INFORMATION

Specifications	
Density $\rho_k$ (dry)	appx. 800 kg/m <sup>3</sup> ± 15 %
Thermal conductivity $\lambda_R$ acc. to EN 12667	appx. 0,19 - 0,21 W/mK
Specific thermal capacity c	appx. 0,9 kJ/kgK
expansion / shrinkage when the relative humidity changes by 30 % (20 °C) acc. to EN 318	± 0,1 ‰
Equilibrium humidity at 65 % relative humidity and 20°C air temperature DIN EN ISO 12570	appx. 3 - 5 wt.-%
Alkalinity (ph-value)	appx. 8 - 10
Category of use in relation to intended use acc. to EAD 350142-00-1106	Type 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Category of use in relation to weathering acc. to EAD 350142-00-1106	Type Z <sub>1</sub> , Z <sub>2</sub> , Y, X

Dimensional tolerances for compensation moisture for standard board formats	
Length, width	± 1 mm
Diagonal difference	≤ 2 mm
Thickness	± 1 mm

Approval	
European technical Assessment	ETA-17/0170
Building material class acc. to DIN EN 13501-1	non-combustible, A1
IMO FTPC part 1	non-combustible



Material characteristics and values						
Board thickness in mm	20	25	30	35	40	60
Weight per m <sup>2</sup> in kg (at 5 % moisture content)	appx. 17	appx. 21	appx. 25	appx. 30	appx. 37	appx. 54
Density $\rho_k$ in kg/m <sup>3</sup> (dry $\pm$ 15 %)	appx. 820	appx. 820	appx. 820	appx. 820	appx. 820	appx. 820
Flexural strength in N/mm <sup>2</sup> (based on EN 12467 $\pm$ 10 %)	3,1	2,8	2,4	2,5	2,2	1,9
Bending elasticity modulus in N/mm <sup>2</sup> (based on EN 12467 $\pm$ 10 %)	2 400	2 100	1 800	1 650	1 600	1000
Compressive strength in N/mm <sup>2</sup> (acc. to EN 789)	4,3	4,1	3,8	3,6	3,3	2,0
Water vapour diffusion resistance number $\mu$ (acc. to EN ISO 12572)	12	—*	—*	—*	—*	—*

Dimensions in mm **						
2 600 × 625	●	●	●	●	●	***

\* no values determined | \*\* Other board thicknesses (up to 3 000 mm), widths (up to 1 250 mm and cuts on request) | \*\*\* width 622mm

Thick- ness [mm]	Length [mm]	Width [mm]	Article number	EAN 40 0 7548 ...	Palletizing			weight per m <sup>2</sup> in kg*
					boards	m <sup>2</sup>	appx. kg*	
<b>20</b>	2 600	625	8122001	... 02057 2	56	91,00	1 590	appx. 17
<b>25</b>	2 600	625	8122501	... 01373 4	46	74,75	1 540	appx. 20
<b>30</b>	2 600	625	8123001	... 02133 3	38	61,75	1 590	appx. 25
<b>35</b>	2 600	625	8123501	... 02054 1	32	52,00	1 605	appx. 30
<b>40</b>	2 600	625	8124001	... 02224 8	28	45,50	1 640	appx. 37
<b>60</b>	2 600	622	8126001	... 02220 0	16	25,875	1 460	appx. 54

\* At 5% humidity

## Approval

- Reaction to fire DIN EN 13501-1:  
non-combustible A1
- Component classification for civil engineering structures:  
international
- Tunnel fire tests acc. To time-Temperature curves:
  - RWS 120
  - RWS 180
  - HCM 120 / N1 / N2 /N3
  - ISO 240
  - NFPA 290

## Board storage and transport

Aestuver® Tx fire-protection boards are packed horizontally and delivered on pallets. They should always be stored flat on level surface. Storing them vertically can lead to deformation of the panels and damage to the edges.

As they are frost- and water-resistant, the boards can be stored outdoors. However, if further surface treatment is considered, the panels should be provided with water-repellent cover and external contamination through operation should be excluded.

Horizontal board transport is possible with lift trucks or other panel transport trolleys. Single boards must always be carried upright. Manual carrying of the boards is facilitated by tools, so-called slab lifters/carriers. If these tools are not available, the workers should wear gloves.

## Recycling

Aestuver® Tx fire-protection boards are mineral building material without components that are hazardous to health or pollute the groundwater and can therefore be disposed of in the construction waste landfill. Aestuver® Tx fire-protection boards waste can be processed in building material recycling plants as an aggregate for various applications.

**Waste code (EAK): 170101 (concrete)**

## Further notes

Our recommendations are based on extensive tests and practical experience. They do not replace guidelines, standards, approvals and applicable technical data sheets. Due to the multitude of possible influences during processing and application, we recommend always carrying out trial processing and application. No claims for compensation can be derived from the information provided. Delivery, processing and warranty for the properties assured by us shall be in accordance with our General Terms and Conditions.