

# BATIBOARD

E-p30  
5th Edition February 2024

## Description

Batiboard is a full range of fire protection boards with 8 grades covering many applications in many countries from fire doors to structure cladding. The latest developments offer improved mechanical properties where fixing without pre-drilling is possible and fire temperatures up to 1400°C including hydrocarbon fires. Batiboard is available in thicknesses from 9 to 50 mm for monolithic boards and laminated boards are available if thicker products are requested.

Batiboard products are separated into 3 families:

- Batiboard 100 and 150 are the original and well proven products based on expanded Perlite, fibres and binders. These boards have Euroclass B-s1,d0.
- Batiboard 200 and 200+ are based on mineral fibers supplemented by expanded Perlite, fillers and binders. These boards offer Euroclass A2-s1,d0 reaction to fire.
- Batiboard 250, A, T and 550+ are based on high temperature fibres combined with other components to give higher density and very high resistance to temperature especially in terms of integrity. These boards are all rated Euroclass A1 reaction to fire.

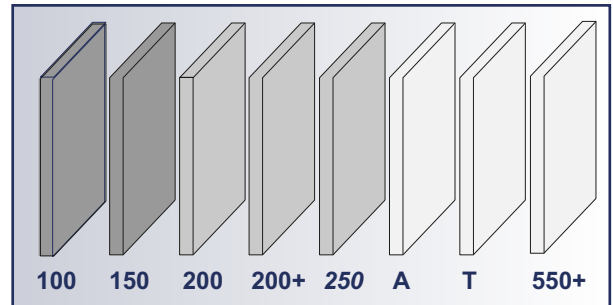
The minimum board thickness is determined by density but all the boards are available:

- in the standard dimensions.
- laminated on request, in which case thickness tolerances are added except for boards sanded afterwards.
- in dimensions and tolerances adapted to specific requirements.
- with specific surface finishes (on request) using a coating developed to improve gluing performance.
- with adapted palletizing, according to special requests especially in terms of the number of boards per pallet.

The Batiboard range is produced exclusively at the Sitek Insulation production facility located in the East of France, which is covered by ISO 9001 and ISO 14001 certification.

## Advantages

- Lightweight
- Mechanical properties
- Dimensions up to 3.00 m
- Thermal insulation
- Dimensional stability
- Easy to handle, cut, glue and press
- Approved quality
- Ecological product
- CE marking for Batiboard 100, 200, 200+, T and 550+
- ETA available for Batiboard T and 550+



## Uses

Batiboard fire protection products are often integrated as fire resistant core boards in OEM applications such as doors, fire dampers, partition walls, thermal breakers, etc. They are easy to cut and are compatible with most of the glues on the market and with pressure bonding processes.

Some of the boards can also be used on site especially for structural steel and tunnel cladding.

Batiboard products may be used where fire classifications for "E" (Integrity) or "EI" (Integrity + insulation) are required.

The main fire protection applications are:

- |                             |                          |
|-----------------------------|--------------------------|
| - Batiboard 100 and 150     | EI30 and 60              |
| - Batiboard 200 and 200+    | EI60 and 90              |
| - Batiboard 250, A and 550+ | EI60, 90, 120 and 180    |
| - Batiboard T               | 120 and 180 min. tunnels |
- Batiboard 100 is used as the core in EI30 steel doors (62 mm finished) and in thermal breakers,
  - Batiboard 150 is used as the core for EI30 wooden doors (40 mm finished).
  - Batiboard 200 is used as the core for EI60 wooden doors (52 and 56 mm finished). and in roof construction in combination with PV cells.
  - Batiboard 200+ has been developed on the basis of Batiboard 200 adding fire-retardant fillers. It achieves comparable performance in terms of fire protection but with at least 10% reduction in thickness.
  - Batiboard 250 is used as the core for W60 wooden doors (40 mm finished), EI60 wooden doors (52 and 56 mm finished), EI60 steel doors (60 mm finished).
  - Batiboard A is used as a thermal shield in laminated solutions.
  - Batiboard T is newly developed and is suitable for use in tunnels and other locations where a hydrocarbon fire curve is specified.
  - Batiboard 550+ is used as a thin fire board with high performance in terms of thermal insulation and mechanical properties allowing the use of screws. Main application: structural steel fire protection.

*Information on composite boards for both fire resistance and acoustic applications may be obtained from the Sitek Insulation sales department*

## Characteristics

Batiboard reference	100	150	200	200+	250	A	T	550+	Unit	Test method
Nominal density	150	160	260	270	320	490	500	550	kg/m <sup>3</sup>	EN 1602
Thickness range (monolithic)	25 - 40	25 - 40	25 - 50	25 - 50	25 - 50	9 - 20	9 - 30	9 - 30	mm	EN 823
Reaction to fire (Euroclass)	B-s1,d0	B-s1,d0	A2-s1,d0	A2-s1,d0	A1	A1	A1	A1	-	EN13501-1
Thermal conductivity at 10°C	0.050	0.052	0.066	0.066	0.068	0.082	0.085	0.090	W/m·K	EN 12667
Resistance to Iso 834 fire curve	√	√	√	√	√	√	√	√	-	-
Resistance to hydrocarbon fire curves							√		-	-
CE certificate	√		√	√			√		-	-
Screw fixing						√	√	√	-	-
Quartz free recipe	√	√		√			√	√	-	-
Fire-retardant fillers		√		√				√	-	-
Loss on ignition after exposure to 800°C for 2 hours	30	27	11	17	5	6	5	16	% (weight)	internal
Linear shrinkage after exposure to 600°C for 4 hours	5.5	1.5	1	1	0.5	0.2	0.2	0.3	%	internal
Nominal compression stress at yield point	180	180	150	150	120				kPa	EN 826
Corresponding deformation	1.5	1.5	1	1	2				%	
Nominal compression at 10% deformation						600	700	1100	kPa	EN 826
Tensile strength perpendicular to faces	80 (monolithic) 60 (multi-layer)		60 (monolithic)			120	130	150	kPa	EN 1607
Modulus of rupture in bending	430	430	800	800	900	2200	2400	3100	kPa	EN 13169 § 4.3.7
Dimensional stability after 48 hours at 70°C and 90% RH, length and width/ thickness	≤ 0.2/0.5	≤ 0.2/0.5	≤ 0.1/0.1	≤ 0.1/0.1	≤ 0.1/0.1	≤ 0.1/0.1	≤ 0.1/0.1	≤ 0.1/0.1	%	EN 1604
Water absorption by total immersion	≤ 0.04	≤ 0.04	≤ 0.07	≤ 0.07	≤ 0.07	≤ 0.07	≤ 0.07	≤ 0.07	kg/dm <sup>3</sup>	internal

## Monolithic board dimensions

Thickness (mm)	10	15	20	25	30	35	40	45	50
Number of boards per pallet <sup>1)</sup>	102	72	54	42	36	30	27	24	21
Standard dimensions (mm)	2100 x 900 and 2400 x 1200								
Maximal dimensions (mm)	2400 <sup>2)</sup> x 1250					3000 x 1250			
Length and width tolerance (mm)	±1 up to 1200 and ± 2 above								
Standard thickness tolerances (mm)	±1			± 2 <sup>3)</sup>			± 2		
Sanded board thickness tolerances (mm)	(-0.5/+0.5) or (-1/+0) or (-0/+1)								
Squareness (mm/m)	± 2								

<sup>1)</sup> to be adapted according to special requirements esp. for container loading

<sup>2)</sup> up to 3000 for Batiboard A in 20 mm and for Batiboard T and 550+ in 20 and 25 mm

<sup>3)</sup> reduced to ± 1 for Batiboard 100 and 150

Characteristics of our products are subject to normal manufacturing variations and can be changed without prior notice. Check with your Sitek Insulation office for current information.

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