

# BATIBOARD

E-p30  
3rd edition June 2018

## Description

Batiboard is a full range of fire protection boards with 7 grades. The latest developments offer thinner boards with stronger mechanical properties and improved fire protection characteristics. Batiboard is available in thicknesses from 10 to 50 mm for monolithic boards and laminated boards are available if thicker products are requested. Product density is from 150 to 550 kg/m<sup>3</sup>.

Batiboard products are separated into 3 families:

- Batiboard 100 and 150 are the original and well proven products based on expanded Perlite, fibers and binders. The latest improvement to the recipe of Batiboard 150 allows it to achieve the B Euroclass (previously C).
- Batiboard 200 and 200+ are based on mineral fibers supplemented by expanded Perlite, fillers and binders.
- Batiboard 250, A and 550+ are based on high temperature fibers combined with other components to give higher density and very high resistance to temperature especially in terms of integrity.

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

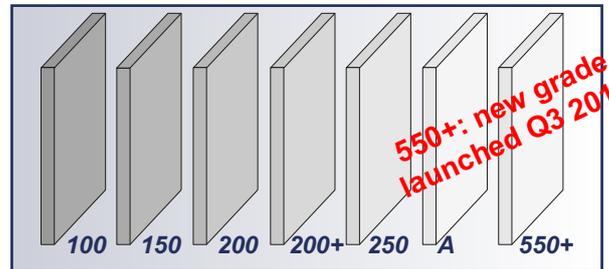
- in the standard dimensions.
- laminated on request, in which case thickness tolerances are added except for boards sanded afterwards.
- in dimensions and tolerances adapted to specific requirements.
- with specific surface finishes (on request) using a coating developed to improve gluing performance.
- 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

- Fire resistance
- Lightweight
- Mechanical properties
- Dimensions up to 3.00m
- Thermal insulation
- Acoustic Insulation solutions
- Dimensional stability
- Easy to handle, cut, glue and press
- Approved quality
- Ecological product

### CE marking for Batiboard 100



## Uses

Batiboard fire protection products are used in various applications in many countries. They are often integrated as fire resistant core boards in OEM applications such as doors, fire dampers, partition walls, thermal breakers, etc. Batiboard products may be used where fire classifications for "E" (Integrity) or "EI" (Integrity + insulation) from 1/2 hour to 2 hours, or even more, are required. They are also integrated into products having combined requirements like fire resistance and acoustic insulation or fire resistance and thermal insulation or for dimensional stability requirements.

All Batiboards are easy to cut and are compatible with most of the glues on the market and with pressure bonding processes.

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 and 120 |
- Batiboard 100 is used as the core in EI30 steel doors (62 mm finished) and for its thermal insulation value (thermal breakers), lightness and dimensional stability.
  - Batiboard 150 is used as the core for EI30 wooden doors (40 mm finished) and in combination with other products for EI60.
  - Batiboard 200 is used as the core for EI60 wooden doors (52 and 56 mm finished).
  - 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 EI60 wooden doors (52 and 56 mm finished), EI60 steel doors (60 mm finished) and in combination with other products for EI90.
  - Batiboard A is used as a thermal shield in laminated solutions where it brings integrity during fire testing and allows mechanical fixing of hardware.
  - 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 and staples. Main application: self-supporting ducts and 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 <20mm	A ≥20mm	550+	Unit	Test method
Nominal density	150	160	260	270	320	490	390	550	kg/m <sup>3</sup>	EN 1602
Thickness range (monolithic)	25 - 40	25 - 40	25 - 50	25 - 50	25 - 50	9 - 19.9	20 - 50	9 - 30	mm	EN 823
Reaction to fire (Euroclass)	C-s1,d0	B-s1,d0	A2-s1,d0	A2-s1,d0	A1	A1	A1	A1	-	EN 13501-1
Thermal conductivity at 10°C	0.050	0.052	0.060	0.060	0.068	0.082	0.075	0.090	W/m.K	EN 12667
Screw fixing						√	√	√		internal
Staple fixing								√		internal
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	0.3	0.3	%	internal
Nominal compression stress at yield point Corresponding deformation	180 1.5	180 1.5	150 1	150 1	120 2				kPa %	EN 826
Nominal compression at 10% deformation						600	500	1100	kPa	EN 826
Tensile strength perpendicular to faces	80 (monolithic) 60 (multi-layer)		60 (monolithic)			120	100	150	kPa	EN 1607
Modulus of rupture in bending	430	430	800	800	900	2200	1100	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	102	72	54	42	36	30	27	24	21
Standard dimensions (mm)	2100 x 900 and 2400 x 1200								
Maximal dimensions (mm)	2400 <sup>1)</sup> x 1200					3000 x 1200			
Length and width tolerance (mm)	±1 up to 1200 and ± 2 above								
Standard thickness tolerances (mm)	± 1			± 2 <sup>2)</sup>				± 2	
Sanded board thickness tolerances (mm)	(-0.5/+0.5) or (-1/+0) or (-0/+1)								
Squareness (mm/m)	± 2								

<sup>1)</sup> : up to 3000 for Batiboard A and 550+ in 20 and 25 mm

<sup>2)</sup> : reduced to ± 1 for Batiboard 100 and 150

The 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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