TECHNICAL DATA SHEET

TEBOPIN FLAM

FT TEBOPIN FLAM · REF 26-V1-GB · *Cancels and supersedes any previous versions*

Internal fittings in public access buildings.
All constructions subject to specific fire regulations.

DESCRIPTION

Base board: Maritime Pine throughout fire -retardant Plywood
Fire reaction classification: B-s1, d0 IAW EN 13501-1
Flooring application correspondence: B_{fl}-s2
Faces (IAW EN 635-3): I+ / II

Face side I+	Reverse side II
	
Tight without knots with wooden patches (maxi 2/m² = 7 per sheet)	Tight with sound knots and wooden patches. Occasional synthetic repairs.

Finishing: sanded 2 side
Average density (IAW EN 323): 580 kg/m³ (+/- 10%)
Bonding (IAW EN 314-2): class 3
Service (IAW EN 636): class 3 exterior conditions

Formaldehyde release classification: E1 IAW EN 717-1 · REACH 2023/1464 compliant
Content of Pentachlorophenol (IAW EN 13986): PCP ≈ 0 ppm

SIZES, NUMBER OF PLIES & PACKAGING

Thicknesses (mm)	Number of plies	Sizes (mm)	Packing
10	(5)	2500 x 1250	45
12	(5)		37
15	(5)		30
18	(7)		25
21	(7)		22
25	(9)		18
30	(11)		15

Other sizes & thicknesses: on request

OPTIONS

Preservative treatments, fungicide & Insecticide, antitermite: optional on request
Cutting & TG processing: optional on request

STORAGE

Flat, on intermediate bearers, in an enclosed dry and ventilated building, clear of the ground. As far as storage on site is concerned, provision should be made to cover the panels with an opaque waterproof sheeting with the underside of the stacks clear of the ground.

FURTHER PROCESSING & INSTALLATION

Compliance with standard practice, with regulations and with health and safety rules should be maintained at all times.
Cutting and machining in the workshop possible except laser technology.

PRODUCTION SITES

Production on Thébault's sites in France

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THEBAULT GROUPE

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TECHNICAL PROPERTIES

Characteristic values (MPA) IAW EN 789 - 1058 for structural calculations IAW Eurocodes

		10	12	15	18	21	25	30
Modulus of elasticity (E_m)	//	8723	7596	9152	9220	8188	6444	7500
	_I_	3727	2078	3298	3230	4262	4815	4950
Bending strength (f_m)	//	20,3	23,2	24,4	23,0	20,4	14,9	15,5
	_I_	17,8	14,8	13,7	12,1	15,1	15,5	12,7
Others characteristic values	Available on DOP Strength in: Tension (f_t), Compression (f_c), Panel shear (f_v) and Planar shear(f_r) Modulus of elasticity in: Tension (E_t), Compression (E_c), Panel shear (G_v) and planar shear (G_r)							

Uses

Use in structural applications (IAW EN 13986, EN 636-3, EN 636-2, EN 636-1)	Suitable for use as structural element in exterior conditions (service class 3), humid conditions (service class 2) and interior conditions (service class 1)

Bending radius (mm)

Thickness	10	12	15	18
//	2500	3000	3750	4750
_I_	2000	2400	3000	3800

Nail and screw holding (t = 15 mm)

Nail	Face and edge: 300 N	
Screw	Face	Edge
	1450 N	1150 N

Fire reaction

AIW EN13501-1	**B-s1, d0 (european classification report No FCBA 22/RC-41, dated 06/12/2022)** The classification is valid for the following end use applications: • Mounting with mechanical fixation (nails, screws, etc.) on D-s2,d0 wood structure or better • For ≥ 7 to < 15 mm-thick panels: on a class A2-s1,d0 substrate or better with minimal density of 525 kg/m³ and minimal thickness of 12 mm standard plaster board type) • For ≥ 15 to < 40 mm-thick panels: without air gap or with closed or open air gap of any thickness between the product and the substrate; on a class A2-s1,d0 substrate or better with minimal density of 525 kg/m³ and minimal thickness of 12 mm (standard plaster board type) • For ≥ 40 à ≤ 43 mm-thick panels: without air gap or with closed or open air gap of any thickness between the product and the substrate; on a class D-s2,d0 substrate or better with minimal density of 338 kg/m³ and minimal thickness of 8 mm (standard plywood type), with or without protective rain or vapour screen rated E or better • For ≥ 12 to ≤ 43 mm-thick panels: with air gap, filled with 40 mm-thick **biobased insulation material** rated Euroclass E or better with a density of 55 kg/m³ (+/- 10 %); on a class D-s2,d0 substrate or better with minimal density of 338 kg/m³ and minimal thickness of 8 mm (standard plywood type), with or without protective rain screen rated E or better • With or without vertical or horizontal joints
	Flooring application correspondence : Dfl-s1

Characteristic density

IAW EN 789	540 kg/m³

Sound absorption coefficient

	Frequency range	
IAW EN 13986 Table N°10	250 Hz to 500 Hz	1000 Hz to 2000 Hz
	0,10	0,30

Vapour permeability

	Wet cup	Dry cup
IAW EN 13986 Table 9	44 µ	187 µ

Thermal conductivity

IAW EN 13986	λ = 0,13

Isolation aux bruits aériens

IAW EN 13986, Paragraph 5.10	The sound transmission loss R of a single wood-based panel, measured in dB, is related the mean surface mass m_A en kg/m² according to the following equation (which is only valid for the frequency range of 1 kHz to 3 kHz and at a surface mass > 5 kg/m²): $R = 13 \times \lg(m_A) + 14$

TECHNICAL SUITABILITY & CERTIFICATION

CE Structure attestation of conformity 2+	0380 - DOP* - CPR - EN 13986 : 2004 + A1 : 2015 - EN 636-3 S E1 * DOP : Declaration of Performance available on www.groupe-thebault.com

Quality marks (country)			Ecocertification	CE Marking	
NF Extérieur CTB-X (F)	BFU 100 (D)	KOMO (NL)	PEFC	CE S (Structural)	Information on the emission level of volatile substances within the indoor air, showing a risk of toxicity in case of inhalation, based on a scale going from A+ (very low emissions) to C (high emissions). Scenarios flooring/ceiling
CERTIFIÉ PAR FCBA NF CONTREPLAQUÉS www.fcba.fr	(equivalent) FMPA überwacht	KOMO®	PEFC 10-31-663	CE	ÉMISSIONS DANS L'AIR INTÉRIEUR A+ A+ A B C

TeboPin Flam

PRECAUTIONS OF USE

All further working operations performed on the product after delivery which may modify the fire reaction classification are carried out under the liability of the buyer or of the end user.
The panels contain crystalline fire –resistant additives which may migrate to the surface and create chalky, powdery areas. This will not affect the mechanical or fire-resistance properties of the panels.
These additives will also increase the hygroscopicity of the panels.

Whatever type of surface finishing you wish to apply on to the plywood it is important to:

1- Stabilize the plywood in the atmosphere where they are to be used until they have reached their equilibrium moisture content.
2- Brush the panels in order to reduce, as far as possible, the presence of crystal on the surface
3- Conduct preliminary tests on samples with the surface coatings to be used to ensure that they are compatible with the plywood substrate. If necessary coordinate tests with the manufacturer of the surface finishing.

When the surface finishing requires an application with an adhesive, it is important to:

4- Stabilize the plywood in the atmosphere where they are to be used until they have reached their equilibrium moisture content.
5- Brush the panels in order to reduce, as far as possible, the presence of crystal on the surface.
6- Use sample pieces to carry out preliminary tests with the adhesive system, to ensure that the area of adherence is compatible with the plywood substrate. If necessary coordinate tests which the manufacturer of the adhesive.

Chalky, powdery areas may occasionally appear on the surface of the panels (even through coatings such as varnish, paint, veneer). This is caused by the panels' crystalline fire-resistant additives. This is a phenomenon which is inherent to the product. Therefore it may not be subject to the submission of a complaint by the buyer or the end – user.

The fire treatment applied to TeboPin Flam is obtained by mean of vacuum pressure treatment. The process may cause a warping or bowing phenomenon within the plan of the plywood which does not affect the intrinsic properties of the panel. The occurrence of such phenomenons may therefore not be subject to the submission of a complaint by the buyer or the end-user.