



TECHNICAL DATA SHEET

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General Product Description

Protecta® FR Board is ideal as a fast assembly non-load bearing partition wall system where the objective is to prevent spread of fire and smoke by dividing areas into separate fire compartments. Protecta® FR Board will also provide acoustic sound insulation as separating walls.

Protecta® FR Board can be used as a stand-alone partition wall in areas where access is limited e.g. lofts and technical rooms, or as an insulation inside plasterboard or wood based particle board walls, increasing the fire classification with reduced wall thickness.

Protecta® FR Board consists of a high density stone wool core, over-coated with Protecta® FR Coating. The top coating provides additional protection by significantly reducing the permeability of the stone wool core and prevents the passage of hot gases, thus reducing the temperature rise on the unexposed side and reducing heat conduction through the wall.

Properties & Precautions

- Protecta® FR Board as a stand-alone partition wall is ideal in areas with restricted access, such as fire compartments in lofts, fire rated walls in technical rooms, separating culverts into fire zones, and similar
- Protecta® FR Board as an insulation inside drywalls is ideal to gain extra floor space through maximizing fire performance with limited wall thickness (please refer to the ETA for details)
- Protecta® FR Board as a stand-alone partition wall can be installed with access from only one side
- Simple and very quick to install using timber studs, and in some cases there is no need for head and base tracks, or outer studs
- Maximum allowed distance between studs is 1.32 m, reducing labour and material costs
- May be used in unlimited lengths, with heights up to 4 m, against a variety of abutting constructions
- Protecta® FR Board resists UV, humidity and frost, tested to durability class Y₁
- Very easy to retrofit after installation with simple tools such as knife and saw
- Halogen free with added fungicides
- Protecta® FR Board can be supplied with a smooth surface
- Protecta® FR Board as a stand-alone partition wall is not suitable in public areas



Fire Sealing Service Penetrations

Protecta® FR Board is classified for fire sealing a wide range of different types of service penetrations. Please refer to the Installation Instructions, using only solutions for single 50 mm boards in drywalls. Minimum distance from service penetrations to timber studs or plates should be 100 mm. The fire classification for the partition wall will be limited to the classification of the service penetration(s) given in the Installation Instructions.

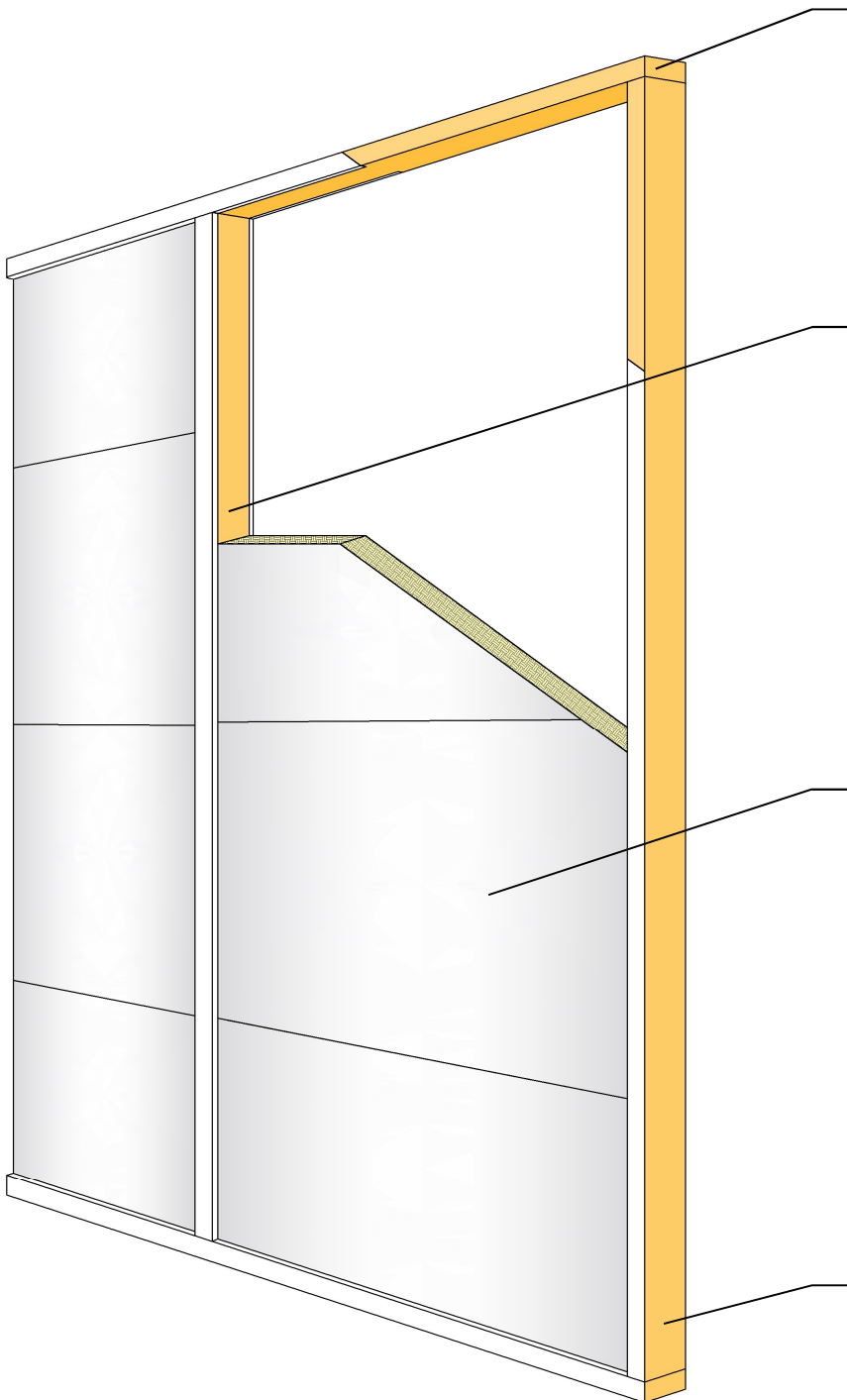
Emission Data (indoor air quality)

Regulation or Protocol	Conclusion
French VOC Regulation	Pass/A+
Italian Regulation (public procurement)	Pass
German AgBB (2021)/ABG (2022)	Pass
Belgian Regulation	Pass
Blue Angel (DE-UZ 123)	Pass
BREEAM-International	Pass/Exemplary Level
BREEAM UK	Pass/Exemplary Level
BREEAM NL	Pass/Exemplary Level
BREEAM-NOR	Pass/Exemplary Level
Finnish M1 Classification	Pass/M1
SINTEF	Pass
Byggsvarubedömningen	Pass
DICL	Pass/Emission Class 1
ECOproduct	Pass/Very Low Emitting
WELL (EU)	Pass
LEED-EU (v4.1) BETA	Pass

Protecta® FR Board has been tested by Normec Product Testing; reports available upon request.



Detail Drawing for EI 60 (E 90) Partition Wall



Top and bottom plates and outer studs with timber C16 or higher grade, minimum 95 mm deep by 45 mm wide with exposed timber painted before or after installation of boards with $\geq 220 \mu$ WFT Protecta Interior Paint FR-1

Alternatively, directly against concrete walls, floors or ceilings $\geq 650 \text{ kg/m}^3$

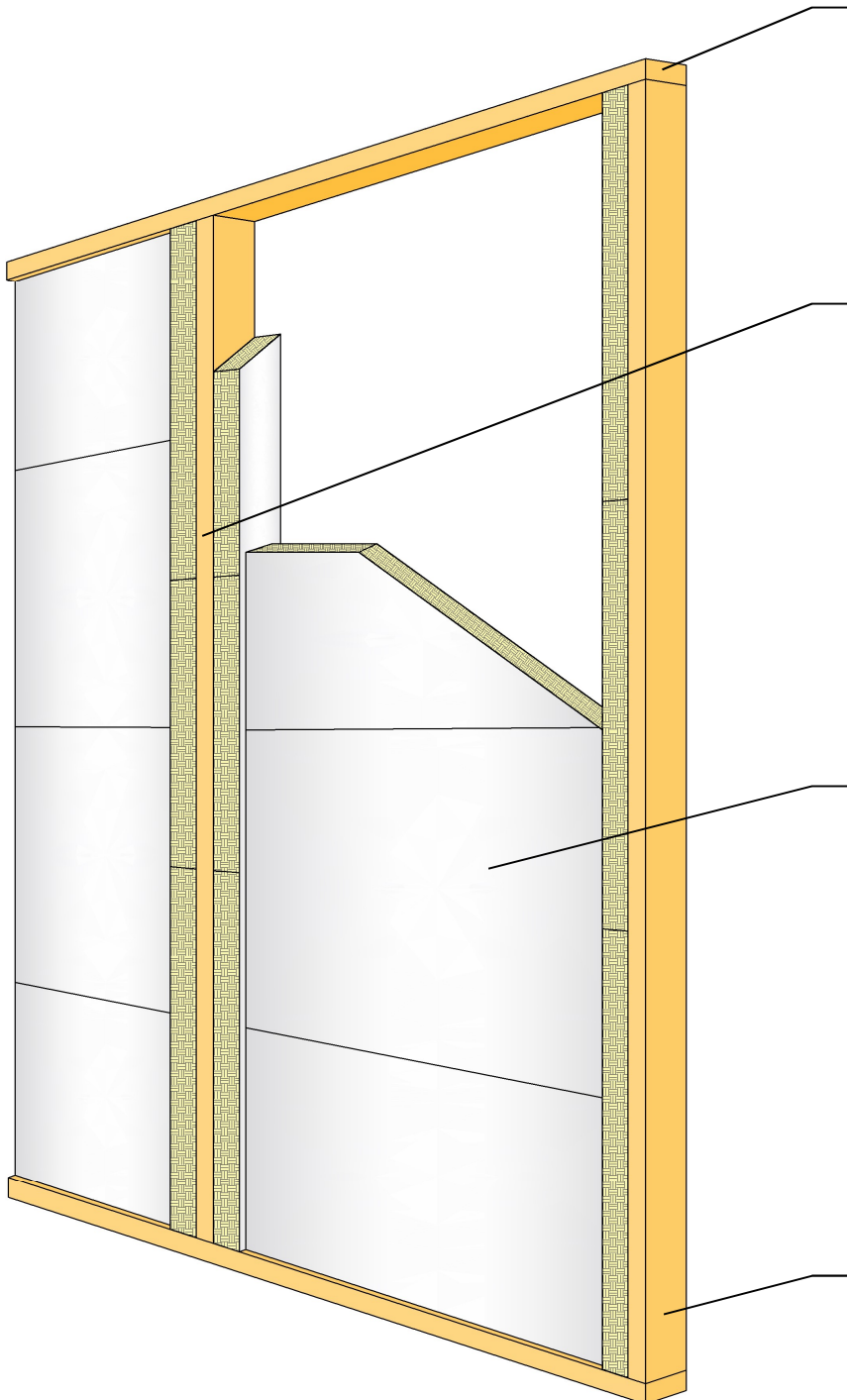
Alternatively, directly against timber walls, floors or ceilings C16 or higher grade, painted $\geq 80 \text{ mm}$ on each side with $\geq 220 \mu$ WFT Protecta Interior Paint FR-1

Inner studs with timber C16 or higher grade minimum 95 mm deep by 45 mm wide with exposed timber painted before or after installation of boards with $\geq 220 \mu$ WFT Protecta Interior Paint FR-1

80 mm thick by maximum 1,200 mm wide Protecta FR Board 2-S, bonded with Protecta FR Coating between all board joints, between boards and studs, and between boards and substrate

Any outer studs or plates are fixed to the abutting construction with $\geq 80 \text{ mm}$ long screws maximum 100 mm from corners, then $c/c \leq 700 \text{ mm}$. Middle studs are fixed top and bottom with ≥ 2 no. $\geq 80 \text{ mm}$ long screws

Detail Drawing for EI 30 (E 30) Partition Wall



Top and bottom plates and outer studs with timber C16 or higher grade, minimum 95 mm deep by 45 mm wide

Alternatively, directly against concrete walls, floors or ceilings $\geq 650 \text{ kg/m}^3$

Alternatively, directly against timber walls, floors or ceilings C16 or higher grade, covered with a single layer of Protecta FR Board 60 mm 2-S, 95 mm deep positioned centre to the abutting construction in-between studs

Inner studs with timber C16 or higher grade minimum 95 mm deep by 45 mm wide with side of studs covered with a single layer of Protecta FR Board 60mm 2-S, bonded with two 5 mm beads of Protecta FR Acrylic towards each front of the studs

60 mm thick by maximum 1,200 mm wide Protecta FR Board 2-S, bonded with two 5 mm beads of Protecta FR Acrylic towards each face of the boards on all four sides

Any outer studs or plates are fixed to the abutting construction with $\geq 120 \text{ mm}$ long screws maximum 100 mm from corners, then $c/c \leq 750 \text{ mm}$. Middle studs are fixed top and bottom with $\geq 2 \text{ no. } \geq 120 \text{ mm}$ long screws



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Sound Insulation

Description	Sound reduction
60 mm FR Board 2-S as partition walls	Rw 29 dB
80 mm FR Board 2-S as partition walls	> Rw 29 dB
40 mm FR Board 2-S as insulation inside plasterboard walls	Rw 35 dB
40 mm FR Board 2-S as insulation inside wooden board walls	N/A

Protecta® FR Board has been tested at Warringtonfire Testing and Certification Ltd (UKAS accredited); according to EN ISO 10140-2:2010.

Air Permeability

Positive Pressure (Pa)	Leakage (m³/h)	Negative Pressure (Pa)	Leakage (m³/h)
25	0.00	25	0.00
50	0.01	50	0.01
100	0.03	100	0.02
200	0.08	200	0.04
300	0.20	300	0.11
450	0.63	450	0.49
600	1.01	600	0.95

Protecta® FR Board has been tested at Warringtonfire Testing and Certification Ltd (UKAS accredited); according to EN 1026: 2016.

Technical Data

Condition	FR Board is supplied coated and ready to install FR Coating is supplied in pails FR Acrylic is supplied in cartridges or foils Interior Paint FR-1 is supplied in pails
Density	FR Board (core): 160 kg/m³ (150 – 170 kg/m³) FR Coating: 1.30 – 1.40 kg/ltr FR Acrylic: 1.58 – 1.64 kg/ltr Interior Paint FR-1: 1.40 kg/ltr
Durability	Z ₂ - Internal conditions with humidity lower than 85 % R.H, excluding temperatures below 0 °C. If timber studs and plates are protected, this may be increased to Y ₁ - Intended for use at temperatures below 0 °C with exposure to UV and humidity but no exposure to rain. Includes lower classes Y ₂ , Z ₁ and Z ₂ .
Curing times	Adhesives used with the partition wall systems gain full bond strength normally 3 to 5 days, whilst the Interior Paint FR-1 is hard dry normally within 1.5 hours, all depending on temperature and humidity
Reaction to fire	Class D-s1, d0 (with painted timber according to page 2)
Flexibility	Low
Thermal conduct.	0.038 W/mK
Storage	FR Board - May be stored for a long period of time. To be stored in temperatures between +5 °C and +30 °C Interior Paint FR-1 - Up to 6 months when stored in cool dry well ventilated areas between +10 °C and +30 °C, with optimum of +20 °C and +25 °C Adhesives - Up to 12 months when stored in unopened containers under cool dry conditions between +10 °C and +30 °C
Limitations	If the partition wall is to be used in permanently humid areas, all materials within the wall design except the boards should be protected with Protecta® FR Coating. The partition wall is not suitable in public areas
Temperature range	- 30°C to + 80°C (with painted timber according to page 2)
Application temp.	For the FR Board and adhesives, +5 °C to +50 °C. For the Interior Paint FR-1, minimum +10 °C and humidity lower than 80 %
Working life	Minimum 25 years if durability conditions are met. Minimum 12 years for the Interior Paint FR-1
Colour	White surface, green core. For available Interior Paint FR-1 in-house colours please refer to our Colour Chart
Packaging	FR Board 60x600x1200 mm: 72 pcs per pallet FR Board 80x600x1200mm: 54 pcs per pallet

Test Standards

This Technical Data Sheet is based on the product's ETA issued in accordance with regulation (EU) No 305/2011 on the basis of EAD 210005-00-0505, tested to EN 1364-1 for non-load bearing partition walls in conjunction with EN 1363-1. The product hold the CE-mark for Europe.