

INTRODUCTION

The Promat SUPALUX® Shaftwall system has a unique calcium silicate A1 non-combustible lining; fully compliant with the requirements of Approved Document B for the lining of a shaftwall.

This system is applicable for use in those areas requiring 60 minute or 120 minute fire integrity and fire insulation performance, but where access for construction is possible from one side only e.g. lift shaft walls and risers.

- Maximum height 4m.
- SUPALUX® board, non-combustible with a reaction to fire Classification of A1 according to BS EN:13501-1.
- Up to 120 minutes fire resistance to BS476 Part 22: 1987.
- System can be built from one side only – removing the need for scaffolding in the shaft.
- Releases building cores for services significantly earlier.
- Overall programme saving.
- Comparable installation time to traditional dry lining.
- Shaft wall nominal thicknesses of 122mm and 138mm.
- Acoustic data (Calculated):
60 minute system Rw 43-44 dB
120 minute system Rw 44-45 dB

CONSTRUCTION DETAILS:

- Promat SUPALUX® boards 9mm thick
- Steel DOUBLE E profile channel 92.8 x 50 x 0.7mm located at 605mm centres.
- Steel SINGLE E profile channel 92.8 x 25 x 0.7mm located at corners and wall abutments. Fixed at maximum 600mm centres using M6 all steel anchor bolts.
- Steel FLOOR TRACK channel 60 x 94 x 60 x 0.7mm fixed at maximum 600mm centres using M6 all steel anchor bolts.

- Steel HEAD TRACK channel 60 x 94 x 60 x 0.7mm fixed at maximum 600mm centres using M6 all steel anchor bolts.
- Promat SUPALUX® cover strip 9mm thick x 100mm wide at all horizontal board joints.
- Rock wool 80mm thick, nominal density 100 kg/m³, applied in staggered layers, fitted between channels. Use either 2 layers of 40mm or a layer of 30mm & a layer of 50mm thick.
- Promat SUPALUX® fillet strip, 20mm thick x 100mm wide fixed through steel channels on the corridor side with M3.5 self-drilling self-tapping screws at 200mm centres.
- All perimeter channels, base and head tracks to be bedded onto Promat PROMASEAL® Intumescent Acrylic Sealant. Promaseal® Intumescent acrylic sealant also to be used to seal all gaps and abutments.

Shaft side:

9mm x 600mm wide SUPALUX® boards friction fitted between studs, bedded in Promat PROMASEAL® Intumescent Acrylic Sealant. Horizontal board joints butted together and backed using 9mm x 100mm wide SUPALUX® cover strip, fixed using 25mm x M3.5 self-drilling self-tapping screws at 200mm centres, fixed on both sides of the joint.

Corridor side:

20mm SUPALUX® fillet strip fixed to face of E-profile channels using M3.5 self-drilling self-tapping screws at 200mm centres.

9mm SUPALUX® boards butted together and screw fixed through the 20mm fillet strip to all framework members using 42mm x M3.5 self-drilling self-tapping screws at 200mm centres.

Horizontal board joints backed using 9mm x 100mm wide SUPALUX® cover strip, fixed using 25mm x M3.5 self-drilling self-tapping screws at 200mm centres, fixed on both sides of the joint.



FIRE PERFORMANCE:

There are three different fire performances, to BS476 Part 22: 1987, available from these two system variants:

E120 EI60 from corridor side to shaft side using the construction as described.

EI120 from shaft side to corridor side using the construction as described.

EI120 from both directions. This system requires SUPALUX® fillet strips 15mm thick x 100mm wide to be fixed to exposed metal on the shaft side of the construction. Fillet strips are fixed with M3.5 steel self-drilling self-tapping screws at nominal 200mm centres.

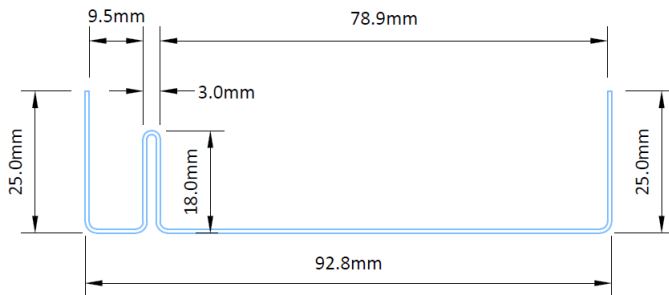
For the 120-minute system, because there will be no combustible material stored within the shaft, it may be possible to use a system which provides a 120 minute integrity and 60 minutes insulation. This approach should be agreed with the project fire engineers and the Building Control Body.

NOTES:

For shaftwall systems for use within buildings which are not yet weathertight, use 9mm thick Impregnated SUPALUX® boards in conjunction with PROMASEAL® Silicone Sealant. This allows the shaftwalls to be installed as soon as the concrete cores and floors have been constructed. Then other trades can start earlier, thus speeding up the building programme.

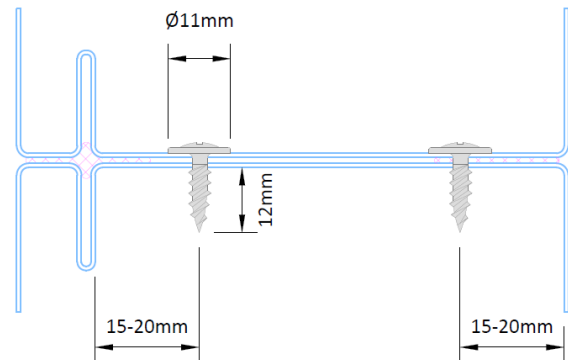
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Vertical Stud Single 'E' Profile

92.8mm x 25.0mm x 0.7mm
4000mm length



Vertical Stud Double 'E' Profile

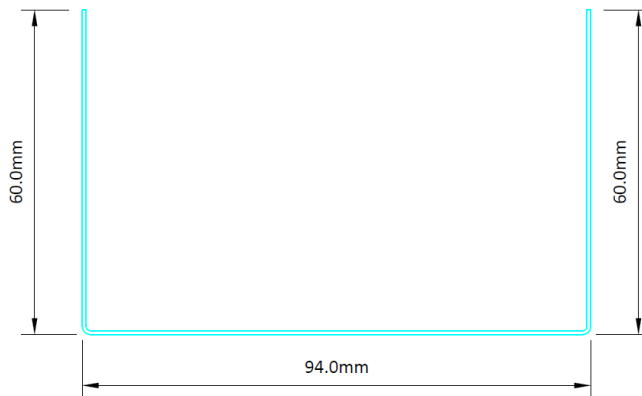
92.8mm x 50.0mm x 0.7mm
4000mm length

SHAFTWALL SYSTEM

Double E profile stud fabricated by joining two single E profile studs, screw fixed together using 13mm x M4 (No.8) steel self-tapping screws or M4 blind rivets at 300mm centres, applied in two rows. Two continuous beads of Promat PROMASEAL® Intumescent Acrylic Sealant applied to back of studs before fixing them together.

Single and double E-studs at nominal 605mm centres may be fixed to the base channel but are a sliding fit in the head channel, with an allowance for longitudinal thermal expansion of at least 5mm per metre height.

- It is assumed that the shaftwall system is supported from appropriate masonry/concrete or steel constructions that have a fire resistance of at least the same as that required by the shaftwall system and which are capable of providing adequate support to the construction for the required period of fire resistance.
- Where partitions are erected against a steel structure, it is a requirement that the steelwork is fire protected with a product to maintain steel protection and compartmentation.



Head and Floor Track Profile

60mm x 94mm x 60mm x 0.7mm
3000mm length

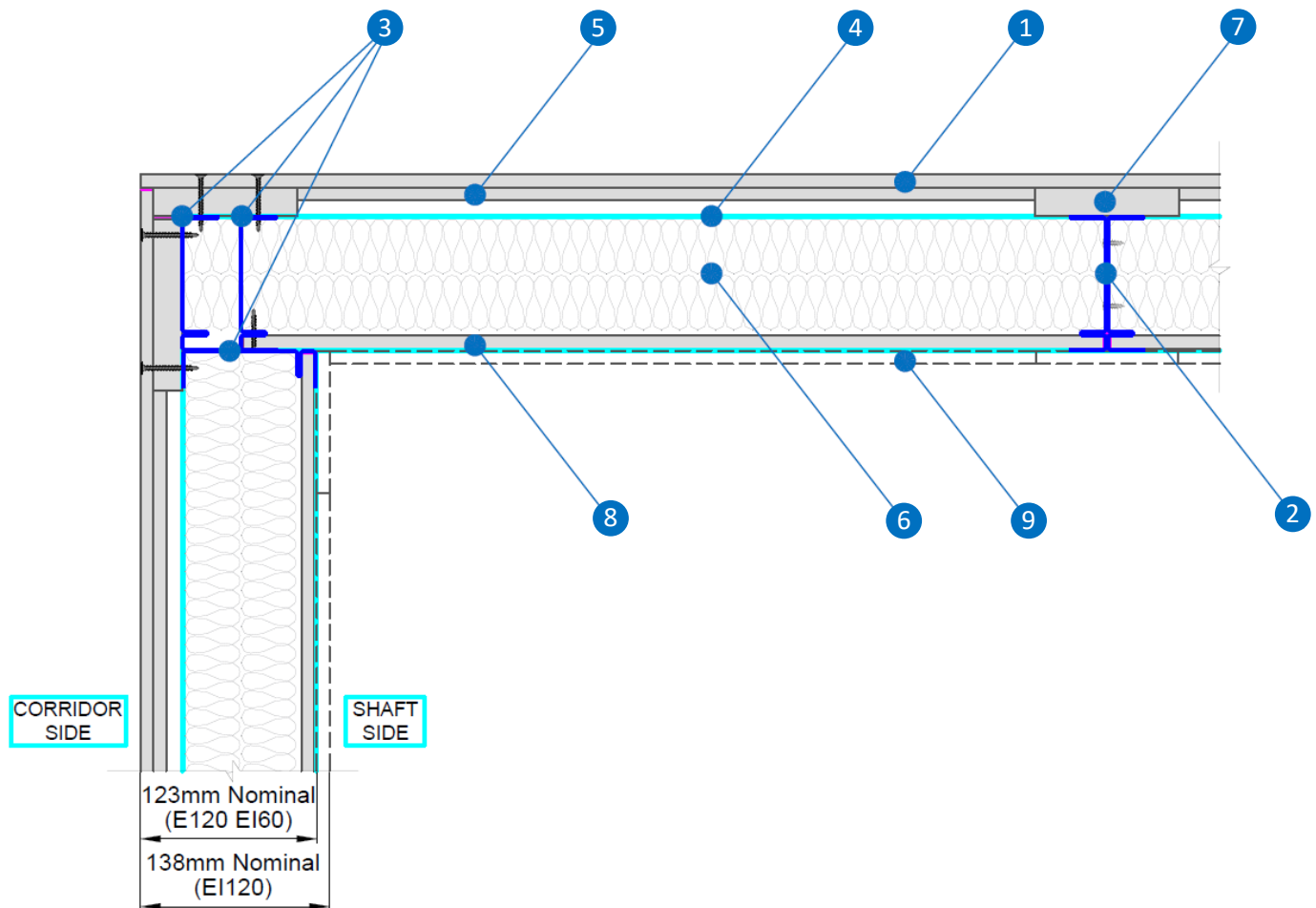
Please contact Etex Building Performance technical team for details of suitable products to provide this required fire protection.

- Fire resistant penetrations can be achieved using the Promat PROMASEAL® range of fire stopping products.

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CORNER DETAIL



KEY

1	Promat SUPALUX® boards 9mm thick
2	Steel DOUBLE E profile channel 92.8x 50 x 0.7mm
3	Steel SINGLE E profile channel 92.8 x 25 x 0.7mm
4	Steel FLOOR TRACK channel 60 x 94 x 60 x 0.7mm
5	Promat SUPALUX® cover strip 9mm thick x 100mm wide at all horizontal board joints
6	Rock wool 80mm thick, nominal density 100 kg/m ³ , applied in staggered layers, fitted between channels
7	Promat SUPALUX® fillet strip, 20mm thick x 100mm wide fixed through steel channels on the corridor side
8	9mm x 600mm wide SUPALUX® boards friction fitted between studs, bedded on Promat PROMASEAL® Intumescent Acrylic Sealant
9	SUPALUX® fillet strips 15mm thick x 100mm wide fixed to exposed metal on the shaft side of the construction (EI120 system only)

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