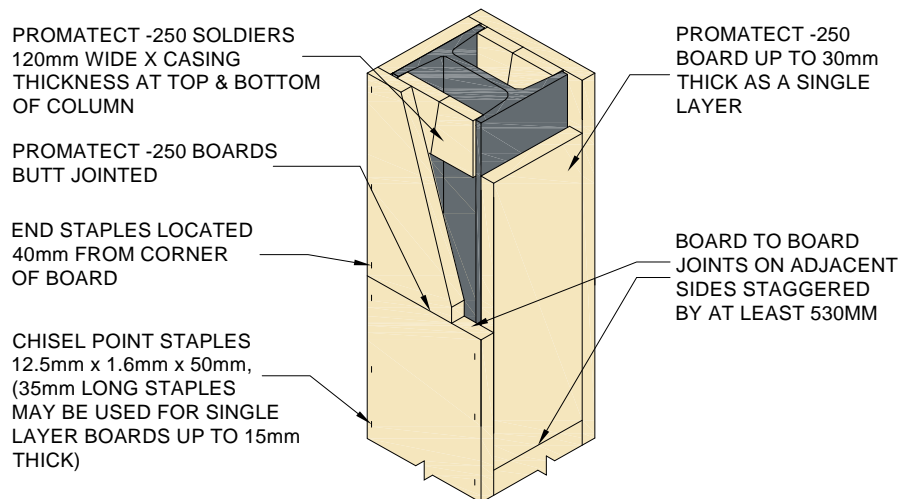


### Introduction:

PROMATECT® -250 is a non-combustible mineral bound light weight board, designed to provide fire protection to structural steelwork. The degree of fire protection depends on the A/V section factor and the limiting temperature of the steel section, this in turn dictates the thickness of the PROMATECT® -250 required.

Full details of the PROMATECT® -250 system can be found in Chapter 3 of The Promat Passive Fire Protection Handbook. This datasheet gives recommendations for the use of PROMATECT® -250 to provide fire protection to steel columns, based on recent certification which extends the scope to cover single board thicknesses of 30mm, the removal of the requirement for soldiers behind the board casings and the use of 35mm staples for board thicknesses of 12mm and 15mm.



### Construction:

For column casings, PROMATECT®-250 soldiers are wedged between the flanges at the top and bottom of the column. The soldiers are 120mm wide x casing thickness. The boards are fixed to the soldiers and to each other using steel staples, 50mm long x 12.5mm wide x 1.6mm thick at 150mm centres. For single layer boards of 12mm or 15mm thickness, the length of staples may be reduced to 35mm.

The first staple is located nominally 40mm from the end corner of the board. Soldiers are not required behind each board joint, but may be fitted to the web joints as an option.

Board to board joints on adjacent sides are staggered by at least 530mm. Double layers of PROMATECT®-250 boards should be used when the thickness to achieve the specified A/V value or limiting temperature exceeds 30mm.

Please refer to Technical Data Sheet 048 for further details if a partition system is to be connected to one or both flanges of the steel columns.

**Maximum Board Thickness:** 30mm (as a single layer)

**Period of Fire Resistance:** Up to 150 minutes – A/V 17 – 260 (m<sup>-1</sup>). BS 476: Part 21: 1987

Where a limiting temperature has **not** been provided, then Promat will have specified the protection thickness to the default value of 550°C.

**However, the user should be aware that this default temperature may not necessarily be adequate, or appropriate, for the proposed use for which the building is intended, and this default temperature specification must be verified with the structural fire designer concerned.**

The load on the structure at the time of the fire can also be calculated by treating it as an accidental limit state. If used, this will allow structural fire designers to specify a limiting or failure temperature for a given structural section, to be provided to the fire protection contractor. Where the limiting temperature is provided, Promat will specify the structural steel protection thickness, appropriate to that temperature.

**AUTHORITY:** Certifire Certificate of Approval Number CF 422

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