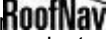


## Building Materials

The products listed in this section have been evaluated according to recognized test standards. Products are also listed under a category entitled "Identified Components." These are not complete end-products, but are critical components of an FM Approved or specification-tested finished material or device.

All listed products have been subjected to examinations and follow-up inspections by FM Approvals. These products are not FM

Approved, except where separately listed for a specific end use application in the Approval Guide of . Periodic audit inspections of the manufacturing facilities and quality control procedures are performed on all listed products. In addition, the products may be re-examined to reconfirm the previous test results and to assess any changes in manufacturing procedures or composition of the product.

The manufacturer of the listed product or material is authorized to apply an identification marking to the product or container which includes the FM Approvals name and the FM Approvals test report identification.

FM Approvals does not imply or express any warranty of any kind with respect to the products, nor assume any responsibility for defects, failure in service or patent infringements.

FM Approvals makes no judgement of product suitability for its intended end use solely as a result of these tests.

## ASTM E 119 STANDARD

The ASTM E 119 Standard Methods of Fire Tests of Building Construction and Materials provides the means to evaluate building elements such as a wall, floor, roof, beam or column during a predetermined fire test exposure. The assemblies have been assigned an hourly fire resistant rating based on the ability of the construction to retard heat transmission while containing a fire, or to retain its structural integrity, or both, depending upon the type of assembly.

To insure the fire resistant performance as listed, the materials and method of installation as noted in the rated assemblies must not be altered.

For wall assemblies, the rating is applicable from either side of the wall unless otherwise indicated. Unbalanced assemblies may be assigned a rating from one side only. In this case, the rating is applicable only to the side of the wall indicated by the words "Fire Side."

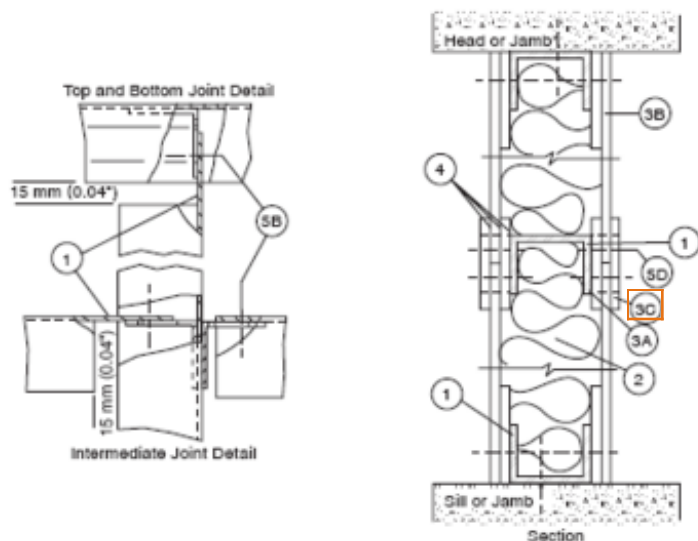
Noted in the illustration of the rated constructions are proprietary components which are manufactured under the FM Approvals Audit Inspection Program.

### Wall Construction 1 - 4 hr (Non-loadbearing)

#### 4-Hour Fire Resistant Wall

#### WALL CONSTRUCTION 1 - 4 HR

#### (Non-loadbearing)



1. WALL FRAMING. Steel channel shaped members, cold rolled steel, 80 x 60 x 3 mm (3.1 x 2.4 x 0.1in.), installed at the perimeter of the wall and secured with Item 5A fasteners. The channel shaped members are installed at vertical and horizontal joints of the wall panels. Vertical members are continuous over the height of the wall and secured with Item 5B fasteners to clip angles welded to the top and bottom channel. Horizontal members are secured with Item 5B fasteners to clip angles welded to each vertical channel. The clip angles are equal leg steel angles 50 mm (2 in.) by 3 mm (0.12 in.) thick by 50 mm (2 in.) long with one leg containing two 25 mm (1 in.) slotted holes.

2. **INSULATION.** The interior cavity is filled with 3 layers of unfaced mineral wool of 140 kg/m<sup>3</sup> (8.8 lb/ft<sup>3</sup>) density. Each layer of mineral wool is 40 mm (1.5 in.) thick and is friction fit into the cavity.
3. **SHEATHING.** 9.5 mm (0.4 in.) thick Durasteel sheets containing a fiber cement core, faced each side with perforated galvanized steel to form fillets, panels and cover strips.
  - a. **Fillets.** 100 mm (4 in.) wide sheets installed over all steel framing channels and secured with Item 5C fasteners.
  - b. **Panels.** 1.2 m (47.3 in.) wide sheets installed vertically and secured to the framing channels with Item 5C fasteners after battens are in place.
  - c. **Cover strips.** 100 mm (4 in.) wide sheets installed over the joints of panels and secured with Item 5C fasteners. Vertical sheets are installed continuous over the height of the wall and the horizontal sheets butt joined to the vertical member.
4. **GASKET.** 60 x 3 mm (2.4 x 0.1 in.) strips of ceramic paper installed at all sheathing panel joints applied over channel framing, fillets and joints of panels.
5. **FASTENERS.** As described below:
  - a. M10 (3/8 in. diameter) steel bolts spaced at 600 mm (24 in.) on center are used to secure the perimeter channel framing.
  - b. M8 x 25 (3/8 in. diameter x 1 in. long) steel hex head bolts with 19 mm (3/4 in.) diameter hex nuts and 22 mm (7/8 in.) diameter x 2.2 mm (0.09 in.) thick nylon washers are used to secure the wall framing channels to the clip angles. Two fasteners per connection
  - c. (Not shown) M8 x 25 (3/8 in. diameter x 1 in. long) steel counter sunk head bolts with 19 mm (3/4 in.) hex nuts used to secure sheathing fillets to channel framing. Two fasteners per fillet.
  - d. 6.5 mm diameter (1/4 in. diameter) steel self drilling Tec screws spaced 200 mm (8 in.) on center to secure the panels and cover strips to the steel framing.

### 3c.

## Durasteel Partition System

Durasteel Partition System used as fillets, panels and cover strips

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<b>Company Address:</b>	The Sterling Centre, Eastern Rd, Bracknell, Berkshire RG12 2TD, United Kingdom
<b>Company Website:</b>	<a href="http://www.promat.co.uk">http://www.promat.co.uk</a>
<b>Listing Country:</b>	United Kingdom
<b>Design Category:</b>	Wall Construction
<b>Certification Type:</b>	Specification Tested (Not FM Approved)