

# FILON Multiclad F

## GRP Sheets for Hygienic Wall Linings

### Introduction

FILON Multiclad F is a competitively priced, flat, dense, white opaque glass reinforced polyester panel (g.r.p.). The panels, which do not incorporate any toxic materials, have been scientifically developed for linings to walls and ceilings where food hygiene is an essential requirement.

FILON Multiclad F panels comply with Code of Practice for plastics intended for use in structures used in connection with the preparation and storage of food. This code is published by the British Plastics Federation and The British Biological Research Station.

The panels are manufactured on a modern, continuous, controlled process, which ensures consistent quality and white colour matching.

Unaffected by temperatures between -30°C and +120°C, FILON Multiclad F is an ideal lining material for use in cold stores, dairies, hospitals, abattoirs, and food preparation areas.

### Product Range

#### Surface Finish

The product is manufactured with an **Embossed** finish. The surface is highly scratch and stain resistant. It is unaffected by blood, detergents, antiseptics or steam cleaning.

The depth of embossing is insufficient to retain dirt but sufficiently deep to prevent direct **'run off'** during cleansing. This enables the surface to be more easily and antiseptically cleansed.

For external applications, a UV resistant film finish is also available.

#### Standard Product Range

Multiclad F panels are manufactured from dense white polyester resins in a standard thickness of 2.0mm and width of 1220mm. Panels can be supplied in flat lengths of 2440mm and 3050mm or in coils of 150m.

#### Non-Standard Requirements

Alternative sizes, colours and product variants are possible to meet specific application requirements within a thickness range of 1.2mm to 2.4mm.

To complement the product range, FILON supply a range of proprietary white extruded plastic 'H' section joining strips, internal and external corners, floor and ceiling caps, glass filled Nylon66 panel rivets, as illustrated overleaf. Food safe silicone sealants and contact adhesives are also available.

#### Fire Performance

Multiclad F is available in three fire resistant grades to enable the most economical product to be selected for individual applications. These panels have been tested under BS 476 : Part 7 'Surface Spread of Flame Test for Materials', and have been rated as follows :

- Grade MCE 3 - Rated Class 3
- Grade MCE 1 - Rated Class 1
- Grade MCE 0 - Rates Class 1\*

\* **Grade MCE 0** panels have been tested under BS 476 Part 6 'Fire Propagation Test for Materials'. By definition under UK Building Regulations **MCE 0** panels are designated **Class 0**.

**NB:** Due to the chemicals added to provide the required fire properties, Filon Products are unable to guarantee the colour matching between different fire grades.

#### Manufacturing Tolerances

Panels are manufactured to the following tolerances unless special arrangements to the contrary have been agreed :

Widths : + 0mm to - 2mm

Lengths up to 5.5 meters : - 0mm to + 6mm

### Performance

#### Structural and Mechanical - Typical Values

Tensile Strength (BS 2782 Part 3)	80N/mm <sup>2</sup>
Flexural Strength (BS 2782 Part 3)	200N/mm <sup>2</sup>
Flexural (Bending) Modulus (BS 2782 Part 3)	4KN/mm <sup>2</sup>
Bolt Shear (BS 4154)	500N+ at 2mm thickness
Hardness : Barcol	50
Thermal Conductivity (K)	0.15 W/m °C
Thermal Transmittance (U)	5.7 W/m <sup>2</sup> °C
Thermal Movement Coefficient of linear expansion	20 x 10 <sup>-6</sup> per °C
Density	1.6g/cm <sup>3</sup>
Panel Weight (Nominal)	2.0mm thick 3.06kg/m <sup>2</sup> 1.2mm thick 1.83kg/m <sup>2</sup> 2.4mm thick 3.66kg/m <sup>2</sup>

#### Operating Temperatures

Temperature range over which panels may be used in construction is from - 30°C to +120°C. Panels will not become brittle at low temperatures.

#### Liquids

Water absorption : 0.25% after 24 hours at 20°C.

#### Biological

Resistant to attack by micro-organisms and fungi.

#### Compatibility

No chemical reaction with other established constructional materials.

## Application

### Functional

Specify FILON Multiclad F panels for internal linings to walls and ceilings where high standards of hygiene are essential requirements.

The 1.2mm thick Multiclad F panels are suitable for use as a surfacing material on bonded panels. The 2.0mm thick panels can be applied direct to ceilings and walls.

### Statutory Requirements

To comply with UK Building Regulations, specify **Grade MCE 3** for walls and ceiling in small rooms not exceeding 30m<sup>2</sup> in non-residential buildings.

Where rooms exceed 30m<sup>2</sup> or where they are located in residential buildings, use **Grade MCE 1**.

Where panels are being used as liners in stairways, corridors or other areas, which may be used as means of escape during a fire, use **Grades MCE 0**.

## Siteworks

### Storage

Store panels on a clean flat level surface. DO NOT store on edge. Precondition panels in proposed working environment for at least 72 hours prior to fitting.

### Cutting and Drilling

Cut Multiclad F sheets using a hacksaw with 6/8 teeth per centimetre. Best Results are obtained if the saw is held at a shallow oblique angle. When cutting with power tools, use a 40/60 grit diamond blade operating at medium speed.

Notch sheets using standard metal working snips. Drill with standard metal bits allowing a clearance of 2mm. Holes must NOT be punched.

### Safety and Welfare

When reworking in confined space, wear a suitable dust mask and goggles. In occasional cases GRP dust can cause slight transient irritation. Should effects be prolonged or any signs of a rash occur, obtain medical advice.

For further information, refer to FILON Multiclad F "Installation Guide for Glass Reinforced Polyester Panels".

## Technical Services

Technical and advisory services are available from Area Sales Managers or Filon Technical Services Department.

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# FILON®

## Multiclad F Extruded Plastic Fittings

Outlined below are the range of fittings available shown actual size.



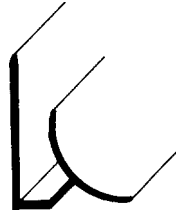
### MCF 101

Division Bar (H Section) - used to link panels together.



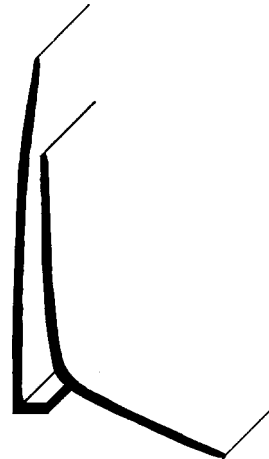
### MCF 102

Capping Strip - used to protect edge of panel where there is no corner fitting, and provides quality finish.



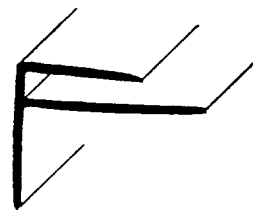
### MCF 103

Inside Corner (Small) - used on ceiling corners.



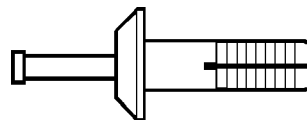
### MCF 104

Inside Corner (Large) - used at floor levels and internal corners of walls. Can also be used on ceiling corners if required.



### MCF 105

External Corner (F Section) - used on external corners of walls



### Multiclad F Glass Filled Nylon 66 Panel Rivets

Panel Rivets are 6.5mm in diameter and provided in a range of lengths from 12.7mm to 152.4mm.

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