



## Construction

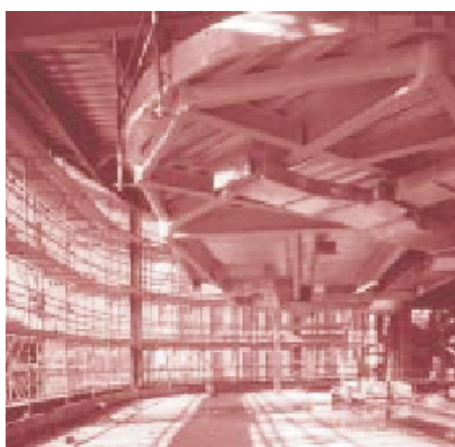
### Cafco 300

### Data Sheet C/F/C-3

#### Use with:

Cafco Bondseal

See Data Sheet C/TA/A-1



*Cafco 300 protects the structural steel at Atlantic Quay, Glasgow*

***Cafco 300 is a spray or trowel applied, single package factory controlled premix, based on vermiculite and gypsum, for internal use.***

*Cafco 300 is a lightweight coating that provides very efficient fire resistance with minimal thickness to steel and concrete frames, metal floor and roof decks, and to return air plenums.*

*Building types that will benefit from the use of Cafco 300, include a wide range of educational, leisure and entertainment centres, and commercial projects.*

#### Properties and performance

##### Colour and finish

Off-white, with a monolithic spray texture.

##### Theoretical coverage

217m<sup>2</sup>/tonne at 15mm thickness.

##### Number of coats

One or more, as required.

##### Cure

By hydraulic set.

##### Initial set

10 to 15 hours at 20°C and 50%RH without accelerator.

##### Density

310kg/m<sup>3</sup> ± 15% without accelerator. Approximately 10% less with accelerator.

##### Bond impact

No cracks or delaminations to ASTM E760.

##### Air erosion resistance

No erosion to ASTM E859.

##### Compressive strength

1.22kg/cm<sup>2</sup> to ASTM E761.

##### Deflection

No spalling, delamination or cracking to ASTM E759.

##### Flame spread

Class 0 as defined by the Building Regulations.

##### Thermal conductivity

0.078W/mK.

##### pH value

8.0 - 8.5.

## Properties and performance (cont)

### Corrosion resistance

Does not promote corrosion of steel. However, a primed substrate is recommended for long term corrosion resistance. See 'Preparation'.

### Fire resistance

Structures protected with Cafco 300 have undergone fire resistance tests up to 240 minutes in approved independent laboratories to recognised standards throughout the world, including:

UK (to BS 476: Parts 6, 7 & 21)

USA (to ASTM E119)

France (to l'Arrêté Ministériel August 1999)

Belgium (to NBN S21-202)

Germany (to DIN 4102: 1977-09 & DIN EN 1363-1:1999-10)

The fire resistance test results relate solely to the constructions tested and test conditions imposed.

## Fire protection thickness

### Establishing the correct thickness

The thickness of the fire protection for a given period of fire resistance in a cellulosic type fire, relates to the  $H_p/A$  ratio of the section.  $H_p/A$  is the ratio of the heated perimeter exposed to fire to the cross-sectional area of steel.

All column and beam sections have their own specific  $H_p/A$  ratio. Refer to the 'Technical Introduction' to establish the  $H_p/A$  ratio for a particular beam or column section, or contact Cafco International to ascertain the thickness of Cafco 300 that meets the required period of fire resistance for I section beams and H section columns.

For advice on thickness calculations for hollow sections, castellated sections, composite floors, upgrading of concrete slabs and more complex

## Preparation

### Typical substrates

Unprimed and primed steel, concrete structural frames, and return air plenums.

### Substrate preparation

The substrate shall be clean, dry and free from dust, loose millscale, loose rust, oil and any other condition preventing good adhesion. Steelwork and concrete substrates should be covered with **Cafco Bondseal**, an adhesive/keycoat, prior to the application of Cafco 300.

## Application

### Initial steps

Application of Cafco 300 must be carried out by an applicator recognised by Cafco International and applied in accordance with the Installation Guide available from Cafco International.

### Methods

Mix Cafco 300 with potable water in a suitable mixer and apply by a spraying machine approved by Cafco International.

Cafco 300 may also be float finished using conventional hand tools or spray textured.

### Limitations

Cafco 300 may be applied if the substrate or air temperatures are a minimum of 4°C and rising, and must be maintained for 24 hours before, during and 24 hours after application. Maximum air and substrate

## Packaging, storage, shelf life

### Packaging

20kg bags.

### Storage

Protect from frost, excessive heat (above 45°C) and strong radiant sunlight.

### Shelf life

6 months maximum.

## Environmental

Do not discharge into drains, watercourses or soil.

## Health and safety

Cafco International's activities are conducted with due regard to all statutory requirements with appropriate safeguards against exposing employees and the public to health and safety risks.

A full copy of Cafco International's Health, Safety and Environmental Policy document is available on request.

See Safety Datasheet (including COSHH Regulations) Code Reference **Saf-3**.

## Quality assurance

Cafco International operates a quality system in accordance with BS EN ISO 9001: 2000, and has received full accreditation by BSI to these standards.

Operating to these standards means that all activities, which have a bearing upon quality, are set out in written procedures. Systematic and thorough checks are made on all materials and their usage. Test equipment is subjected to regular checks and is referred back to national standards.

The information given in this datasheet is based on actual tests and is believed to be typical of the product. No guarantee of results is implied however, since conditions of use are beyond our control.

## Further information



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