

Promat



Cafco HEATSHIELD™

Mineral Wool Cement Mix Spray

construction applications



www.promat-spray.com

Cafco HEATSHIELD™

Mineral Wool Cement Mix Spray

INTRODUCTION

Cafco HEATSHIELD™ is a dry spray applied, single pack factory controlled premix, based on a mixture of mineral wool and cement binders, for internal use or when protected from direct exposure to the weather.

Cafco HEATSHIELD™ is used for application on steel and concrete frames, concrete soffits, metal decks and return air plenums.

The application of Cafco HEATSHIELD™ provides an economical and joint-free barrier to thermal transmission and offers excellent sound absorption. Building types that will benefit from the use of Cafco HEATSHIELD™ include a wide range of educational, leisure and entertainment centres or commercial projects, including the thermal insulation of ground floor car parks.



*Cafco HEATSHIELD™ Application
Capital Plaza, Abu Dhabi*

Properties and performance	
Colour and finish	Off-white. Surface can be textured or tamped
Minimum practical thickness	10mm
Theoretical coverage	103m ² /tonne at 65mm thickness
Number of coats	One or more as required
Cure	By hydraulic set
Initial set	6 to 8 hours at 20°C and 50% RH
Density	150kg/m ³ ± 15%
Combustibility	Non-combustible to BS476: Part 4: 1970
Thermal conductivity	0.041W/mK at a density of 150kg/m ³
Smoke generation	Does not contribute to smoke generation
pH value	9.5
Sound absorption	Noise reduction coefficient (NRC) 0.75, see TABLE 1

ADVANTAGES

Durable, lightweight coating that offers combined thermal and acoustic properties in addition to fire protection. Can be sprayed around any complex shape.

Cafco HEATSHIELD™

Mineral Wool Cement Mix Spray

SOUND INSULATION THICKNESS

Cafco HEATSHIELD™ has been extensively tested and used as a medium for absorbing sound, and being spray applied presents a monolithic surface.

The noise reduction coefficient (NRC) is the average absorption of sound in the 250-2000 Hertz (Hz) range. In **TABLE 1**, figures are also given for 125 Hz as this represents the pitch of the average male voice and has relevance to office design.

Thickness	Substrate	Frequency						NRC rating
		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	
		Absorption coefficient						
12.7mm	Solid	0.07	0.1	0.43	0.67	0.8	0.92	0.50
25.4mm	Solid	0.10	0.26	0.75	0.94	1.02	1.00	0.74
50.8mm	Solid	0.25	0.68	1.13	1.24	1.16	1.19	1.05
76.2mm	Solid	0.35	0.91	1.23	1.22	1.14	1.15	1.13

TABLE 1 Cafco HEATSHIELD™ thickness at density of 150kg/m³ and sound absorption

THERMAL INSULATION THICKNESS

The thermal insulation requirement for a building can be expressed as a U-value. Part L of the UK Building Regulations provides guidance according to building type.

Promat is able to calculate the thickness of Cafco HEATSHIELD™ required in order to achieve the specified U-value of a construction. In order to do so this the following information is required:

- Specified U-value to be achieved.
- Detailed section showing the build-up of the construction to be insulated.

Please consult Promat Technical Department for further information.

PREPARATION

Typical substrates	Concrete soffits, metal decks, composite floors and return air plenums
Substrate preparation	The substrate shall be clean, dry and free from dust, loose millscale, loose rust, oil and any other conditions preventing good adhesion All surfaces should be prepared by the application of CAFCO® Bondseal

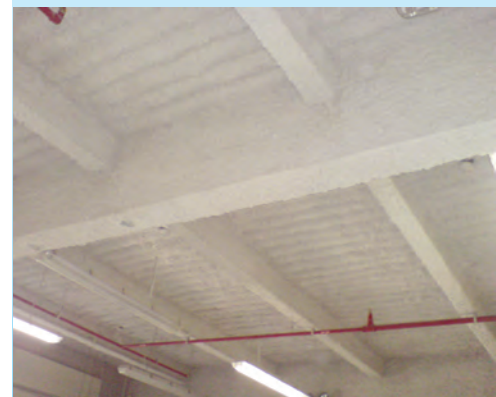


Cafco HEATSHIELD™

Mineral Wool Cement Mix Spray

APPLICATION

Initial steps	Application of Cafco HEATSHIELD™ must be carried out by an applicator recognised by Promat and applied in accordance with the application guide available from Promat
Methods	Cafco HEATSHIELD™ is mixed with potable water at the nozzle of a spraying machine approved by Promat
Limitations	Cafco HEATSHIELD™ may be applied when the substrate and air temperatures are at least 4°C and rising, and must be maintained for 24 hours before, during and 24 hours after application. Maximum substrate and air temperature is 45°C. Substrate temperature should be at least 2°C above dew point temperature



*Cafco HEATSHIELD™ Application
ALEC project, Dubai*

QUALITY ASSURANCE

Promat operates a quality system in accordance with BS EN ISO 9001: 2008 and has received full accreditation 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 data sheet 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.

HEALTH AND SAFETY

Adequate ventilation must be provided during use. Avoid contact with the skin and eyes by using eye protection, gloves, barrier cream and a face mask.

If the product comes into contact with the skin, wash immediately with soap and water. If the eyes are affected, flush with plenty of water and seek medical attention immediately.

A safety data sheet is available from Promat upon request.

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



Cafco HEATSHIELD™

Mineral Wool Cement Mix Spray

TOPCOATING

Under certain circumstances, CAFCO® Bondseal may be applied to the finished tamped Cafco HEATSHIELD™ to give a better resistance to impact damage and moisture ingress, together with an improved appearance.

PACKAGING

20kg bags.

STORAGE

Above ground and kept dry.

SHELF LIFE

Maximum 12 months.

ENVIRONMENTAL

Do not discharge into drains, watercourses or soil.



Promat Fire Protection

Suite 1805, 18th Floor
Dubai Festival City Tower
P. O. Box 123945, Dubai
United Arab Emirates
Tel: +971 (4) 232 9780
Fax: +971 (4) 232 9781

www.promatfp.ae