



CAFCO-BOARD™

Rigid Board Fire Protection

CAFCO-BOARD is a rigid, mineral wool board which provides up to 4 hours fire protection for columns, up to 3 hours protection for beams and floor/ceiling assemblies and up to 2 hours protection for roof assemblies in commercial and industrial construction.

CAFCO-BOARD is ideal for limited clearance around perimeter walls, retrofit applications, seismic activity zones, moment connection framing and abatement

projects where speed and dry application are paramount. The board is applied directly to steel surfaces by impaling over the patented Cafclip™ or weld pins, and fastened with clinch shields or screws with washers.

There is no need for tarping, masking, ventilating or heating of the work area since there is no minimum application temperature. CAFCO-BOARD is available unfaced or foil-faced.

Technical Information

Nominal Density	9 pcf (144 kg/m ³)
Standard Dimension	2' x 4' (610 x 1219mm)
Thickness Range	1" to 4- 1/2" (25 to 114mm)
Finish	Unfaced, foil faced (FSP)
Recycled Content	90% (post industrial)
Method of Attachment	Patented friction fit Cafclips™, welded pins and clinch shields

Sound Transition Class (STC) Data

1 inch (25mm)	10
2 inch (51mm)	15
3 inch (76mm)	18

Surface Burning Characteristics

	Plain	Foil Faced
Flame Spread	0	15
Smoke Developed	0	5

Thermal Conductivity (BTU in/hr ft²F@ 75°F)

R-Value/inch	K-Factor
4.2	0.24
	(0.034 W/mK@24° C)

Noise Reduction Coefficients*

1/3 Octave Band Center Frequency Hz

	125	250	500	1000	2000	4000	NRC
2 in. (51mm)	0.18	0.75	1.17	1.06	1.00	0.81	1.00
4 in. (102mm)	0.49	1.11	1.11	1.14	0.97	0.64	1.10

* Data on Unfaced Cafco-Board, when tested in accordance with ASTM C423

HOURLY RATING

COLUMNS	1	1½	2	3	4	UL DESIGN
W6x16 to W8x28 (W150x24 to W200x42)						X314
W10x49 (W250x73)						X314
W12x106 to W14x228(W310x158 to W360x342)						X314
PROTECTED FLOOR/CEILING ASSEMBLIES Min. Conc. Tkns.						
Electrified floor decks 2" – 3" deck 2-½" conc.						D301
Floor Assembly 2" – 3" deck 2-½" conc.						D301
BEAM ONLY FLOORS Min. Conc. Tkns.						
Floor Beam Only Rating 2-½" conc.						N308
Floor Beam Only Rating 2-½" conc.						N309
ROOF / CEILING ASSEMBLIES (INCLUDES BEAMS AND JOISTS)						
Polyisocyanurate or Mineral and Fiber Boards WITHOUT Gypsum Board						P301
Lightweight Insulating Concrete						P922

CAFCO-BOARD Guide Specification

PART 1 – GENERAL

1.1 SCOPE – SPECIFY TO MEET PROJECT REQUIREMENTS

1.2 RELATED DOCUMENTS

- 1.2.1 Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this section.
- 1.2.2 Qualifications: All materials, unless otherwise indicated, shall be provided by Isolatek International and shall be installed in accordance with current printed instructions.
- 1.2.3 Delivery and Storage of Materials: All materials shall be delivered in their original unopened packages and stored in an enclosed shelter providing protection from damage and exposure to the elements. Damaged or deteriorated materials shall be removed from the premises.

1.3 SUBMITTALS

- 1.3.1 General: Submit the following in accordance with conditions of Contract and Division 1 Specification Sections.
- 1.3.2 Product data for each type of product specified.
- 1.3.3 Product test reports from, and based on tests performed by, qualified independent testing and inspecting agency acceptable to authorities having jurisdiction. Include test results and their interpretations which evidence compliance of current mineral wool board fire protection with requirements.
- 1.3.4 Research reports or evaluation reports of the model code organization acceptable to authorities having jurisdiction which evidence mineral wool board's fire protection compliance with the building code applicable to the project.
- 1.3.5 Fire Performance Characteristics: Provide mineral wool board fire protection with identical fire performance characteristics to those which have been determined per test methods indicated below, and have been tested by UL or other testing organizations acceptable to authorities having jurisdiction.
 - 1.3.5.1 Surface Burning Characteristics: ASTM E-84 (UL723,CAN/ULC-S102)
 - 1.3.5.2 Fire Resistance Ratings: ASTM E-119 (UL263,CAN/ULC-S101), with ratings indicated by the appropriate UL or equivalent design which has been based on tests per ASTM E-119. These tests/designs are listed in the UL Fire Resistance Directory or equivalent publication.

1.4 SINGLE SOURCE RESPONSIBILITY

- 1.4.1 Obtain mineral wool board fire protection and accessories from one manufacturer for each type of construction and rating.

1.5 SEQUENCING

- 1.5.1 Sequence and coordinate installation of board fire protection with related construction operations specified in other sections, to comply with the following requirements:
- 1.5.2 Avoid unnecessary exposure of mineral wool board fire protection to abrasion and other damage likely to occur during construction operations subsequent to its application.
- 1.5.3 Do not install board fire protection on structural members until piping and other construction behind the fire protection has been completed.
- 1.5.4 Expedite installation of board material to minimize exposure of structural members without fire protection.

- 1.5.5 Do not enclose mineral wool board fire protection until application is completed and inspected by authorities having jurisdiction.

PART 2 – PRODUCTS

2.1 REFRACTORY BOARD FIRE RESISTANT MATERIALS

- 2.1.1 Refractory Mineral Wool Board Fire Protection: Rigid boards of 9 pcf (144 kg/m³) nominal density; produced from asbestos free materials by combining refractory mineral wool manufactured from slag with thermosetting resin binders to comply with ASTM C-612 for Class 4 and as follows:
 - 2.1.1.1 Thermal Conductivity (R Value/inch): 4.2 at 75° F (24° C).
 - 2.1.1.2 Surface Burning Characteristics: Maximum Flame Spread and Smoke Developed ratings of 15 and 5, respectively.
- 2.1.2 Fastening Accessories: For each fire resistive assembly in which mineral wool board fire protection serves as rigid fire protection, provide a board fastening system complying with the related UL design or other acceptable testing and inspecting organization's report.
- 2.1.3 Product: Subject to compliance with requirements, provide CAFCO-BOARD™ Mineral Wool Board Fire Resistant Material (UL Designation: Type CB) by Isolatek International.

PART 3 – EXECUTION

3.1 EXAMINATION

- 3.1.1 Examine substrates and conditions under which mineral wool board fire protection construction is to be installed. Do not proceed with installation of fire resistant board until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- 3.2.1 Comply with manufacturer's instructions for installation. Consult with manufacturer's technical department or representative for conditions not covered by printed instructions.
- 3.2.2 Install mineral wool board fire resistant material to comply with requirements for thickness, number of courses (layers), construction of joints and corners, and fastening methods referenced in the appropriate fire resistance design indicated.

3.3 PROTECTION

- 3.3.1 Coordinate installation of board fire resistant material with other construction trades to minimize cutting into, or removal of, already installed board material. As construction by other trades is successively completed, replace or repair board fire resistant material installations which have been removed or cut away, in accordance with 3.3.2. Maintain complete thickness on steel members and assemblies protected by fire protection.
- 3.3.2 All patching and repair to board fire resistant material due to damage by other trades shall be performed under this section and paid for by the trade responsible for the damage.
- 3.3.3 Provide final protection and maintain conditions in a manner acceptable to Installer, Manufacturer, and authorities having jurisdiction that ensures mineral wool board fire protection is without damage or deterioration at time of Substantial Completion.

For Further Information

ISOLATEK INTERNATIONAL is registered with the AIA Continuing Education System (AIA/CES)

For Further Information CAFCO® Technical and Sales Representatives are always available to lend assistance. Additional printed materials, including Material Safety Data Sheets, and other product literature, are available upon request. For more information about our CAFCO® line of sprayed fire protection, thermal and acoustical treatments, SprayFilm™ Intumescent Coatings, and CAFCO-BOARD™ or for the name of the Sales Representative in your area, please contact:

In the United States: Isolatek International, Stanhope, New Jersey Tel: 800.631.9600 Fax: 973.347.9170

In Mexico & Central America: Cafco Mexico S.A. de C.V., Mexico D.F. Tel: 52.55.5254.6683 Fax: 52.55.5531.7826

In Andean Countries: Cafco Andina S.A., Santiago, Chile Tel: 562.378.5120 Fax: 562.378.5121

In Canada: Cafco Industries, Toronto (Ontario) Tel: 888.873.0003 Fax: 416.679.2933

For more detailed product information, visit our website at
www.cafco.com or contact us at cafco@isolatek.com

The performance data herein reflect our expectations based on tests conducted in accordance with recognized standard methods under controlled conditions. The sale of these products shall be subject to the Terms and Conditions of Sale set forth in the Company's invoices. Isolatek International is not responsible for property damage, bodily injuries, consequential damages or losses of any kind that arise from or are related to the applicator's, general contractor's, or property owner's failure to follow the recommendations set forth in Isolatek International's publications. No agent, employee or representative of the Company, its subsidiary or affiliated companies, is authorized to modify this statement.

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Total Passive
Fire Protection