

PRODUCT DESCRIPTION

CAFCO-BOARD is a rigid mineral wool board which combines fire protection, thermal insulation and acoustical control all in one product. With the ability to be installed during any phase of construction, regardless of roof traffic, temperature or substrate condition, CAFCO-BOARD is the ideal solution for fast paced projects.

PRODUCT ADVANTAGES

- Lasting in-place performance – mechanically fastened
- 70% recycled content (pre-consumer)
- Inorganic composition
- Available in pre-manufactured thicknesses according to UL design criteria
- Choice of unfaced, silver or white foil faced finish
- NRC of up to 1.1 for noise reduction coefficient
- Thermal resistance (R-value) up to 4.2

Technical Information

Nominal Density	9 pcf (144 kg/m ³)
Standard Dimension	2' x 4' (610 x 1219 mm)
Thickness Range	1" to 4½" (25 to 114 mm)
Finish	Unfaced, silver foil faced, white foil faced
Recycled Content	70% (pre-consumer)
Method of Attachment	Patented friction fit Cafclips, welded pins and clinch shields

Hourly Rating

	1	1½	2	3	4	
Columns						
W6x16 to W8x28 (W150x24 to W200x42)	•	•	•			X314
W10x49 (W250x73)	•	•	•	•		X314
W12x106 to W14x228 (W310x158 to W360x342)	•	•	•	•	•	X314
Protected Floor/Ceiling Assemblies Minimum Concrete Thickness						
Electrified floor decks 2" – 3" deck 2-½" concrete	•	•	•	•		D301
Floor Assembly 2" – 3" deck 2-½" concrete	•	•	•	•		D301
Unprotected Floor/Ceiling Assembly						
Floor Beam 3 ¼" LW Concrete	•	•	•			D915
Beam Only Floors Minimum Concrete Thickness						
Floor Beam Only Rating 2-½" concrete	•	•	•			N308
Floor Beam Only Rating 2-½" concrete	•	•	•	•		N308
Roof / Ceiling Assemblies (Includes Beams And Joists)						
Polyisocyanurate or Mineral and Fiber Boards	•	•	•			P301
Lightweight Insulating Concrete	•	•	•			P301

FIRE TEST PERFORMANCE

CAFCO-BOARD has been extensively tested for fire resistance and is rated for up to 4 hours for floor assemblies, beams, joists, columns, and roof assemblies.

- Classified by UL in accordance with ANSI/UL 263 (ASTM E119)
- Classified by UL in accordance with CAN/ULC-S101 (ASTM E119)

CAFCO-BOARD has also been tested for surface burning characteristics in accordance with ASTM E84 and is rated Class A.

Plain	Flame Spread	0	Smoke Developed	0
Foil Faced	Flame Spread	15	Smoke Developed	5

Thermal Performance

Product	Conductivity(k)*	Resistance (R/inch)
CAFCO-BOARD	0.24 BTU in/hr ft ² °F @ 75°F (0.034 W/m•K@24° C)	4.2

*When tested in accordance with ASTM C518

Noise Reduction Coefficients*

	1/3 Octave Band Center Frequency HZ						
	125	250	500	1000	2000	4000	NRC
2 in (51 mm)	0.18	0.75	1.17	1.06	1.00	0.81	1.00
4 in (102 mm)	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

Sound Transmission Class (STC) Data

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

CAFCO-BOARD Guide Specification

SECTION 078200 – BOARD FIREPROOFING
The following is an outline/short language application. Complete specifications for the Rigid Board Fire Protection is available on various media upon request.

PART 1 – GENERAL

1.1 Work Included

- 1.1.1 Specify to meet project requirements. Provide all labor, materials, equipment and services necessary for, and incidental to, the complete and proper installation of all sprayed fire protection and related work as shown on the drawings or where specified herein, and in accordance with all applicable requirements of the Contract Documents.
- 1.1.2 The material and installation shall conform to the applicable building code requirements of all authorities having jurisdiction.
- 1.1.3 Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specifications Sections, apply to this Section.
- 1.2 **Quality Assurance**
 - 1.2.1 Work shall be performed by a firm with expertise in the installation of fire protection or similar materials. This firm shall be recognized or otherwise approved by the Rigid Board fire resistive material manufacturer.
 - 1.2.2 Fire Test Response Characteristics: Provide rigid 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.
 - 1.2.2.1 Surface Burning characteristics: ASTM E84
 - 1.2.2.2 Fire Resistance Ratings and Fire Resistance Assemblies: Provide rigid board fire protection with ratings indicated by the appropriate UL or equivalent design based on ASTM E-119 (UL263, CAN/ULC-S101) testing requirements.
 - 1.2.2.3 Combustion Characteristics: ASTM E136
 - 1.2.2.4 Fire resistance rated assemblies/designs are listed in the UL Fire Resistance Directory or equivalent publication.

1.3 Related Sections

- 1.3.1 SECTION 072100 - THERMAL INSULATION
- 1.3.2 SECTION 078100 – APPLIED FIREPROOFING
- 1.3.3 SECTION 078123 – INTUMESCENT FIREPROOFING
- 1.3.4 SECTION 078413 - PENETRATION FIRESTOPPING
- 1.3.5 SECTION 092900 – GYPSUM BOARD
- 1.3.6 SECTION 099123 – INTERIOR PAINTING

1.4 Submittals

- 1.4.1 Product Data to be submitted with manufacturers specification, including certification as may be required to show material compliance with Contract Documents
- 1.4.2 Product Certificates or test reports from, and based on tests performed by, qualified independent testing and inspection agency acceptable to authorities having jurisdiction. Include test results and their interpretations which evidence compliance of current mineral wool board fire protection with from Independent laboratory test results for all specified performance criteria.
- 1.4.3 Research/ 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.

1.5 Coordination/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 rigid board fire protection to abrasion and other damage likely to occur during construction operations subsequent to its application.
- 1.5.3 Do not install rigid board fire protection on structural members until piping and other construction behind the fire protection has been completed.
- 1.5.4 Expedite installation of rigid board fire protection to minimize exposure of structural members without fire protection.

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

PART 2 - PRODUCTS

2.1 Manufacturers

- 2.1.1 The rigid board fire protection shall be manufactured under the CAFCO® brand name, by authorized producers.
- 2.1.2 CAFCO-BOARD Rigid Board Fire Protection (UL Designation: Type CB) and related accessories shall be provided by ISOLATEK International and shall be installed in accordance with current printed instructions.

2.2 Materials

- 2.2.1 Materials shall be CAFCO-BOARD, (UL/ULC designation, Type CB) produced from materials by combining refractory mineral wool manufactured from slap with thermosetting resin binders, to comply with ASTM C-612 for Class 4, nominal density of 9pcf (144kg/m³), applied to conform to the drawings, specifications and following test criteria:
 - 2.2.2 Thermal Conductivity (R value/inch): 4.2 at 75° F (24° C) per ASTM
 - 2.2.3 Surface Burning Characteristics: Maximum Flame Spread and Smoke Developed ratings of 0 and 15, respectively.
 - 2.2.4 Fastening Accessories: For each fire resistive assembly in which rigid board fire protection serves as rigid fire protection, provide a board fastening system complying to the related UL design or other acceptable testing and inspection organization's report.

PART 3 – EXECUTION

3.1 Preparation

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

3.2 Installation/Application

- 3.2.1 Comply with manufacturer's written instructions for particular conditions of installation in each case.
- 3.2.2 Install rigid board fire protection to comply with requirements for thicknesses, number of courses (layers), construction of joints and corners, and anchorage methods applicable to fire resistance rated assemblies indicated.

3.3 Protection

- 3.3.1 Coordinate installation of rigid board fire protection with other construction trades to minimize cutting into, or removal of, already installed board material. As construction by other trades is successfully completed, replace or repair rigid board fire protection 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 rigid board fire protection 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 rigid board fire protection is without damage or deterioration at time of Substantial Completion.

3.4 Field Quality Control

- 3.4.1 Inspection Agency: Engage a qualified independent inspecting agency to inspect rigid board fire protection and prepare inspection reports.
- 3.4.2 Testing Services: Inspecting of completed installations of rigid board fire protection shall take place in successive stages as installation of rigid board fire protection proceeds. Do not proceed with installation of rigid board fire protection for the next area until inspecting agency determines completed work shows compliance with requirements.

Product Availability
ISOLATEK International Rigid Board Fire Protection is available to trained, recognized applicators around the world from strategically located production and distribution points in the U.S., Canada, Mexico, Europe and the Pacific Basin.



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



We support our customers with unsurpassed technical expertise and customer service, complemented by an extensive global network of experienced sales representatives and recognized applicators. For detailed product information or for the name of the sales representative in your area please contact us.

The performance data herein reflect our expectations based on tests conducted in accordance with recognized standard methods under controlled conditions. The applicator, general contractor, property owner and/or user MUST read, understand and follow the directions, specifications and/or recommendations set forth in Isolatek International's publications concerning use and application of these products, and should not rely merely on the information contained in this Technical Data Sheet. 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. The sale of these products shall be subject to the Terms and Conditions set forth in the Company's invoices.



Isolatek International provides passive fireproofing materials under the CAFCO® and FENDOLITE® trademarks throughout the Americas and under the ISOLATEK® trademark throughout the remainder of the world.

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