CAFCO 300 is a durable, wet mix Spray-Applied Fire Resistive Material (SFRM) designed to provide fire protection to various floor and roof assemblies, steel beams, columns, and joists in commercial construction projects.

CAFCO 300 offers the best fire resistance performance per unit thickness of any commercial SFRM. This means less material is needed to achieve required fire ratings. CAFCO 300 is very cost efficient.

CAFCO 300 is applied exclusively by CAFCO licensed and trained contractors. Our technical staff works closely with building team members to meet all fire protection needs.

CODE COMPLIANCES

CAFCO 300 satisfies the requirements of the following:
- IBC - International Building Code (ICC ESR-1649)
- New York City - MEA
- City of Los Angeles
- NBC - National Building Code of Canada

MAJOR SPECIFICATIONS

CAFCO 300 complies with the requirements of the following specifications:
- General Services Administration (GSA): AIA/SC/GSA:07811
- Department of the Navy NAVFACENCWCOM Guide Specification NFGS 07810, Sprayed-On Fireproofing
- Veterans Administration (VA): H-08-1
- U.S. ARMY Corps of Engineers CECS-07811
- U.S. Environmental Protection Agency (EPA): Regulation 40
- Construction Specification Canada (CSC) TEK-AID
- Factory Mutual Approved

FIRE TEST PERFORMANCE

CAFCO 300 has been extensively tested for fire endurance by Underwriters Laboratories (UL) and Underwriters Laboratories of Canada (ULC) in accordance with ASTM E119 (UL 263, CAN/ULC-S101).

These tests have resulted in ratings of up to 4 hours for:
- Floor Assemblies
- Beams
- Joists
- Columns
- Roof Assemblies

CAFCO 300 has also been tested in accordance with ASTM E84 (UL723,CAN/ULC-S102) and has the following Surface Burning Characteristics
- Flame Spread.....................0
- Smoke Developed..................0

THERMAL PROPERTIES

CAFCO 300 is also a thermal insulator. This benefit is important in reducing heat loss, particularly when the product is applied to the underside of a roof deck. The R-value added by CAFCO 300 may allow a reduction in roof insulation.

<table>
<thead>
<tr>
<th>Product</th>
<th>Conductivity (k)*</th>
<th>Resistance (R/inch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAFCO 300</td>
<td>0.54 BTU in/hr ft²°F @ 75°F (0.078 W/mK @ 24°C)</td>
<td>1.85</td>
</tr>
</tbody>
</table>

**When tested in accordance with ASTM C518**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>ASTM Method</th>
<th>Standard Performance*</th>
<th>Tested Performance**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>E605</td>
<td>15 psf (240 kg/m²)</td>
<td>15 psf (240 kg/m²)</td>
</tr>
<tr>
<td>Combustibility</td>
<td>E136</td>
<td>Noncombustible</td>
<td>Noncombustible</td>
</tr>
<tr>
<td>Cone Calorimeter</td>
<td>E1354</td>
<td>No Flaming or Heat Release</td>
<td>No Flaming or Heat Release</td>
</tr>
<tr>
<td>Cohesion/Adhesion</td>
<td>E736</td>
<td>150 psf (1.2 kPa)</td>
<td>428 psf (26.5 kPa)</td>
</tr>
<tr>
<td>Deflection</td>
<td>E759</td>
<td>No Cracks or Delaminations</td>
<td>No Cracks or Delaminations</td>
</tr>
<tr>
<td>Bond Impact</td>
<td>E760</td>
<td>No Cracks or Delaminations</td>
<td>No Cracks or Delaminations</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>E761</td>
<td>750 psf (35.9 kPa)</td>
<td>3,100 psf (148.4 kPa)</td>
</tr>
<tr>
<td>Air Erosion Resistance</td>
<td>E859</td>
<td>Less than 0.025 g/ft² (0.27 g/m²)</td>
<td>0.000 g/ft² (0.000 g/m²)</td>
</tr>
<tr>
<td>Corrosion Resistance</td>
<td>E937, Mil. Std. 810</td>
<td>Does Not Promote Corrosion of Steel</td>
<td>Does Not Promote Corrosion of Steel</td>
</tr>
<tr>
<td>Sound Absorption</td>
<td>C423</td>
<td>0.50 NRC 1&quot; (25mm) on deck and beam</td>
<td></td>
</tr>
<tr>
<td>Fungal Resistance</td>
<td>G21</td>
<td>No Growth After 28 Days</td>
<td>Passed</td>
</tr>
</tbody>
</table>

* Standard performance based on General Services Administration AIA/SC/GSA:07811. Refer to UL design for density requirement.
For further information refer to the application manual.
** Values represent independent laboratory tests under controlled conditions.
PART 1 – GENERAL

1.1 Work included

1.1.1 Provide all labor, materials, equipment and services necessary for, and incidental to, the complete and proper installation of all spray-applied 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.

1.2 The material and installation shall conform to the applicable building code requirements of all authorities having jurisdiction.

1.3 Quality Assurance

1.3.1 Section 05100 – Structural Steel.

1.3.2 Section 06000 – Metal Decking.

1.3.3 Section 07200 – Insulation.

1.3.4 Section 07270 – Firestopping.

1.3.5 Fireproofing and Firestopping.

1.3.6 Section 09000 – Lath and Plaster.

1.3.7 Section 09800 – Painting.

1.4 Submittals

1.5.1 Manufacturer’s Data: Submit Manufacturer’s specifications, including certification as may be required to show material compliance with Contract Documents.

1.5.2 Test Data: Independent laboratory test results shall be submitted for all specified performance criteria.

1.5.3 Delivery, Storage and Handling

1.5.4 Deliver materials to the project in manufacturer’s unpacked packages, fully identified as to trade name, type, and other identifying data. Packaging shall bear the UL labels for fire hazard and fire-resistance classifications.

1.6 Stow materials above ground in a dry location, protected from the weather. Damaged packages found unsuitable for use shall be rejected and removed from the project.

1.7 Project Conditions

1.7.1 When the prevailing outdoor temperature at the building is less than 40°F (4°C), a minimum substrate and ambient temperature of 40°F (4°C) shall be maintained prior to, during, and a minimum of 24 hours after application of spray-applied fire resistant material. If necessary for job progress, General Contractor shall provide enclosure and heat to maintain proper temperature and humidity levels.

1.7.2 General Contractor shall provide ventilation to allow proper drying of the spray-applied fire protection during and subsequent to the application.

1.7.3 In enclosed areas, ventilation shall not be less than 4 complete air changes per hour.

1.8 Sequencing/Scheduling

1.8.1 All fire protection work on a floor shall be completed before proceeding to the next floor.

1.8.2 The Contractor shall cooperate in the coordination and scheduling of fire protection work to avoid delays in job progress.

PART 2 – PRODUCTS

2.1 Acceptable Manufacturers. The spray-applied fire resistant material shall be manufactured under the CAFCO® brand name, by authorized producers.

2.2 Materials

2.2.1 Materials shall be CAFCO 300, (UL/ULC designation: Type 300) as per opening in the drawings, specifications and following test criteria.

2.2.2 Definition. When tested in accordance with ASTM E781, the material shall not crack or delaminate when the non-concrete topped gasketed deck to which it is applied is subjected to a one time vertical cantilevered resulting in a downward deflection of 1/28th of the span.

2.2.3 Bend Impact. When tested in accordance with ASTM E781, the material shall not crack or delaminate from the concrete topped gasketed deck to which it is applied.

2.2.4 Cohesion/Adhesion (bond strength). When tested in accordance with ASTM E605, the material shall meet the minimum individual strength as listed in the appropriate UL/ULC design or as required by the authority having jurisdiction.

2.2.5 The material shall have been tested and classified by Underwriters Laboratories, Inc. (UL) or Underwriters Laboratories of Canada (ULC) in accordance with the procedures of UL 280 (ASTM E119) or CAN/ULC-S101.

2.2.6 Spray-applied fire resistant materials shall be applied at the appropriate minimum thickness and density to achieve the following ratings:

<table>
<thead>
<tr>
<th>Floor assembly</th>
<th>Minimum thickness</th>
<th>Minimum density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floor assemblies</td>
<td>1/8”</td>
<td>0.062 sq. ft. (0.23 grams per square meter)</td>
</tr>
<tr>
<td>Roof assemblies</td>
<td>1/8”</td>
<td>0.062 sq. ft. (0.23 grams per square meter)</td>
</tr>
<tr>
<td>Girders and Beams</td>
<td>1/8”</td>
<td>0.062 sq. ft. (0.23 grams per square meter)</td>
</tr>
<tr>
<td>Columns and Joists</td>
<td>1/8”</td>
<td>0.062 sq. ft. (0.23 grams per square meter)</td>
</tr>
<tr>
<td>POSFA Expoat</td>
<td>___hr.</td>
<td>Sq. ft. (0.27 grams per square meter)</td>
</tr>
</tbody>
</table>

2.2.7 Smoke Developed | 3.0 |

2.2.8 Density. When tested in accordance with ASTM E605, the material shall meet the minimum individual and average density values as listed in the appropriate UL/ULC design or as required by the authority having jurisdiction.

2.2.9 The application of spray-applied fire resistant material shall not be applied to steel floor decks prior to the completion of concrete work on that deck.

2.2.10 When the application of spray-applied fire resistant material to the underside of rebar shall not commence until the roofing is completely installed and tight, all penetrations are complete, and all mechanical units have been placed, and after construction roof traffic has ceased.

2.3 Preparation

2.3.1 All patching and repair to spray-applied fire resistive material, due to damage by other trades, shall be performed under this section and paid for by the trade responsible for the damage.

2.3.2 After the completion of the work in this section, spray-applied fire resistant material is not to be sprayed shall be cleaned to the extent previously agreed to by the applicant and General Contractor.

2.3.3 Inspection and Testing


Isolatek International Spray Applied Fire Resistive Materials are available in travel, licensed contractors around the world from strategically located production and distribution points in the U.S., Canada, Mexico, Europe and the Pacific Basin.

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