



## FLAME CONTROL COATINGS

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## FLAME CONTROL 60-60A INTUMESCENT THERMAL BARRIER FOR SPRAY POLYURETHANE FOAM INSULATION

### CSI Section:

09 96 43 Fire-Retardant Coatings

### 1.0 RECOGNITION

Flame Control 60-60A has been evaluated for use as a fire-protective coating for spray foam plastic products. The coating has been evaluated for the contribution of wall and ceiling finish to room fire growth and as an alternative to the prescriptive thermal barrier required in Section 2603.4 of the IBC and Section 316.4 of the IRC. Flame Control 60-60A evaluated in this report is a satisfactory alternative to those prescribed in the following codes and regulations:

- 2021, 2018, 2015, and 2012 International Building Code® (IBC)
- 2021, 2018, 2015, and 2012 International Residential Code® (IRC)

### 2.0 LIMITATIONS

Use of Flame Control 60-60A recognized in this report is subject to the following limitations:

2.1 The application of any additional interior finish over the fire-protective coating is beyond the scope of this report.

2.2 Spray foam plastic insulation shall be installed in accordance with this report and the manufacturer's installation instructions. Where conflicts occur, the more restrictive shall apply.

2.3 Approval of Flame Control 60-60A for use with any insulation product listed herein is conditional upon that insulation products' current approval for use with Flame Control 60-60A. Users shall independently verify the current validity of any evaluation report referenced herein.

2.4 Flame Control 60-60A is produced in Niagara Falls, New York.

### 3.0 PRODUCT USE

#### 3.1 Design

**3.1.1 Alternative Thermal Barrier Assembly:** When used as an alternate to the prescriptive thermal barrier required in IBC Section 2603.4 or IRC Section R316.4, Flame Control 60-60A shall be applied to the minimum thickness shown in Table 1 of this report.

**3.1.2 Interior Finish:** Based on testing to NFPA 286, when Flame Control 60-60A is applied to spray foam plastic insulations as shown in Table 1 of this report, the assembly is considered to have a Class A interior wall and ceiling finish classification as defined in Section 803.1.1 of the 2021 and 2018 IBC and Section 803.1.2 of the 2015 and 2012 IBC.

#### 3.2 Application

**3.2.1 General:** Flame Control 60-60A shall be applied in accordance with Flame Control Coating's installation instructions, the spray foam plastic manufacturer's installation instructions, this evaluation report, and the applicable codes listed in Section 1.0 of this report. Where conflicts occur, the more restrictive governs. The manufacturer's published installation instructions and this report shall be available at the jobsite for quality control purposes.

**3.2.2 Application:** The minimum installed thickness of Flame Control 60-60A shall be applied to foam plastic insulation as shown in [Table 1](#) of this report. Before application of Flame Control 60-60A, the spray foam plastic insulation shall be allowed to cool and cure for a minimum of one hour or as required by the foam plastic manufacturer, as applicable. The surface of the foam plastic shall be free of dirt, debris, and other contaminants and shall be firm and dry before application.

Flame Control 60-60A shall be thoroughly mixed using a high-speed drill mixer before application. The coating shall be applied by airless spray, brush, or roller in a single coat to the spray foam insulation in a uniform manner. The applications shall occur at temperatures ranging from 50°F to 90°F (10°C to 32°C) unless special instructions are provided by the manufacturer for applications at colder temperatures. For applications with a relative humidity at the time of application greater than 65 percent, fans shall be used to circulate the air for proper curing.

### 4.0 PRODUCT DESCRIPTION

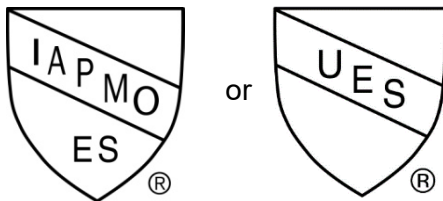
Flame Control 60-60A intumescent coating is manufactured in white, gray, and black colors by Flame Control Coatings, LLC. The coating is water-based and supplied in 5-gallon



(18.9 L) pails weighing 62 lbs. (28.1 kg) and 55-gallon (208 L) drums weighing 682 lbs. (309 kg). The coating material has a maximum shelf life of 12 months when stored in factory sealed containers. The material shall be protected from freezing, and it is recommended to be stored at temperatures above 50°F (10°C). Flame Control 60-60A has a drying time of 1 to 2 hours to touch and 2 to 4 hours to recoat.

## 5.0 IDENTIFICATION

Flame Control 60-60A's pails and drums are identified by the Flame Control Coating's name and address, product name (Flame Control 60-60A), date of manufacture, product shelf life, conditions for storage and evaluation report number (ER-596). Either IAPMO Uniform Evaluation Service Mark of Conformity may also be used as shown below:



**IAPMO UES ER-596**

## 7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research completed by IAPMO Uniform Evaluation Service on Flame Control 60-60A intumescent coatings to the conformance to the codes shown in Section 1.0 of this report and documents the product's certification. Flame Control 60-60A is produced at locations noted in Section 2.4 of this report under a quality control program with periodic inspection under the supervision of IAPMO UES.

For additional information about this evaluation report please visit [www.uniform-es.org](http://www.uniform-es.org) or email us at [info@uniform-es.org](mailto:info@uniform-es.org)

## 6.0 SUBSTANTIATING DATA

**6.1** Manufacturer's descriptive literature and installation instructions.

**6.2** Data in accordance with the ICC-ES Acceptance Criteria for Fire-protective Coatings Applied to Spray-applied Foam Plastic Insulation Installed Without a Code-Prescribed Thermal Barrier, AC456, dated October 2015, editorially revised January 2021.

**6.3** Testing in accordance with NFPA 286.

**6.4** Data in accordance with IAPMO/ANSI ES1000-2020, Standard for Building Code Compliance of Spray-Applied Polyurethane Foam.

**6.5** Data in accordance with 2019 ICC 1100 Standard for Spray-applied Polyurethane Foam Plastic Insulation.

**6.6** Test reports are from laboratories in compliance with ISO/IEC 17025.



**TABLE 1 (continued on next page)**  
**FOAM PLASTIC PRODUCTS APPROVED FOR USE WITH FLAME CONTROL 60-60A AS**  
**ASSEMBLIES NOT REQUIRING A PRESCRIPTIVE 15-MINUTE THERMAL BARRIER**

| Manufacturer's Name                                 | Product Name             | Product Density (pcf) | Evaluation Report <sup>1,2</sup> | Application of Flame Control 60-60A |          |   | Maximum Thickness of Spray Foam (inches) |          |
|---|--------------------------|-----------------------|----------------------------------|-------------------------------------|----------|---|--|----------|
|   |                          |                       |                                  | Minimum Installed Thickness (mils)  |          | Theoretical Application Rate (gallons/100 square feet) <sup>3</sup> | Vertical                                 | Overhead |
|   |                          |                       |                                  | Wet Film                            | Dry Film |   |  |          |
| BASF  | Spraytite 158            | 2.0                   | CCRR-1031 and ESR-2642           | 20                                  | 13       | 1.3   | 7.5                                      | 11.5     |
| BASF  | Spraytite SP             | 2.0                   | CCRR-1031 and ESR-2642           | 20                                  | 13       | 1.3   | 7.5                                      | 11.5     |
| Barnhardt Manufacturing Inc. DBA-NCFI Polyurethanes | InsulBloc SmartSPF       | 2.0                   | <a href="#">ER-667</a>           | 14                                  | 9        | 0.87  | 8  | 12       |
| Barnhardt Manufacturing Inc. DBA-NCFI Polyurethanes | InsulStar SmartSPF       | 2.0                   | <a href="#">ER-667</a>           | 14                                  | 9        | 0.87  | 8  | 12       |
| Barnhardt Manufacturing Inc. DBA-NCFI Polyurethanes | InsulStar 1.7 SmartSPF   | 1.7                   | <a href="#">ER-667</a>           | 14                                  | 9        | 0.87  | 8  | 12       |
| Carlisle  | Foamsulate 50            | 0.5                   | <a href="#">ER-351</a>           | 14                                  | 9        | 0.87  | 6  | 10       |
| Carlisle  | Foamsulate OCX           | 0.5                   | <a href="#">ER-394</a>           | 20                                  | 13       | 1.3   | 7.5                                      | 11.5     |
| Carlisle  | Foamsulate 50 HY         | 0.5                   | <a href="#">ER-540</a>           | 14                                  | 9        | 0.87  | 6  | 10       |
| Carlisle  | Sealtite PRO OCX         | 0.5                   | <a href="#">ER-615</a>           | 20                                  | 13       | 1.3   | 7.5                                      | 11.5     |
| Carlisle  | Sealtite PRO No Mix      | 0.5                   | <a href="#">ER-616</a>           | 14                                  | 9        | 0.87  | 6  | 10       |
| Carlisle  | Sealtite PRO Closed Cell | 2.0                   | <a href="#">ER-621</a>           | 14                                  | 9        | 0.87  | 6  | 10       |
| Carlisle  | SealTite Pro High Yield  | 0.5                   | <a href="#">ER-623</a>           | 14                                  | 9        | 0.87  | 6  | 10       |
| Carlisle  | SealTite PRO OC          | 0.5                   | <a href="#">ER-624</a>           | 14                                  | 9        | 0.87  | 6  | 10       |
| Carlisle  | Foamsulate Closed Cell   | 2.0                   | <a href="#">ER-626</a>           | 14                                  | 9        | 0.87  | 6  | 10       |
| Carlisle  | Sealtite PRO One Zero    | 2.0                   | <a href="#">ER-640</a>           | 14                                  | 9        | 0.87  | 6  | 10       |
| Carlisle  | Foamsulate HFO           | 2.0                   | <a href="#">ER-650</a>           | 14                                  | 9        | 0.87  | 6  | 10       |
| Energy One America                                  | EOA 500                  | 0.5                   | ESR-3686                         | 12                                  | 8        | 0.75  | 6  | 10       |
| Gaco  | Gaco OnePass F1850       | 2.1                   | CCRR-1043                        | 12                                  | 8        | 0.75  | 6  | 10       |
| Gaco  | Gaco One Pass Low F1880  | 2.2                   | CCRR-1106                        | 12                                  | 8        | 0.75  | 6  | 10       |
| Gaco  | Gaco 183M                | 2.0                   | CCRR-1002                        | 12                                  | 8        | 0.75  | 6  | 10       |



TABLE 1 (continued)

| Manufacturer's Name         | Product Name                | Product Density (pcf) | Evaluation Report <sup>1, 2</sup> | Application of Flame Control 60-60A |          |   | Maximum Thickness of Spray Foam (inches) |          |
|-----------------------------|-----------------------------|-----------------------|-----------------------------------|-------------------------------------|----------|---|--|----------|
|                             |                             |                       |                                   | Minimum Installed Thickness (mils)  |          | Theoretical Application Rate (gallons/100 square feet) <sup>3</sup> | Vertical                                 | Overhead |
|                             |                             |                       |                                   | Wet Film                            | Dry Film |   |  |          |
| Gaco                        | Gaco EZ Spray F4500         | 0.55                  | CCRR-1107                         | 12                                  | 8        | 0.75  | 6  | 10       |
| Huntsman Building Solutions | Heatlok HFO Pro Closed Cell | 2.0                   | <a href="#">ER-565</a>            | 18                                  | 12       | 1.12  | 5.5                                      | 9.5      |
| Huntsman Building Solutions | Heatlok HFO High Lift       | 2.0                   | ESR-4073                          | 18                                  | 12       | 1.12  | 5.5                                      | 9.5      |
| Rhino Linings               | Thermal Guard CC2 ECO       | 2.0                   | ESL-1121                          | 14                                  | 9        | 0.87  | 5.5                                      | 9.5      |
| Rhino Linings               | Thermal Guard OC.5 B-D      | 0.5                   | ESR-2100                          | 14                                  | 9        | 0.87  | 6  | 10       |
| SES Foam                    | Nexseal 2.0                 | 2.0                   | <a href="#">ER-374</a>            | 12                                  | 8        | 0.75  | 6  | 10       |
| SES Foam                    | Nexseal 2.0 LE              | 2.0                   | <a href="#">ER-374</a>            | 12                                  | 8        | 0.75  | 6  | 10       |
| SES Foam                    | Sucraseal                   | 0.5                   | ESR-3375                          | 12                                  | 8        | 0.75  | 6  | 10       |
| SWD                         | 108                         | 0.4                   | CCRR-1051                         | 14                                  | 9        | 0.87  | 8  | 12       |
| SWD                         | Quik-Shield 108 OC YM       | 0.4                   | CCRR-1051                         | 14                                  | 9        | 0.87  | 8  | 12       |
| SWD                         | Quik-Shield 112             | 2.0                   | CCRR-1011                         | 20                                  | 13       | 1.3   | 9.5                                      | 9.5      |
| SWD                         | Quik-Shield 118             | 2.0                   | CCRR-1093                         | 20                                  | 13       | 1.3   | 9.5                                      | 9.5      |
| SWD                         | Quik-Shield 144             | 2.0                   | CCRR-391                          | 20                                  | 13       | 1.3   | 9.5                                      | 9.5      |
| Sustainable Polymers        | .50 OCX                     | 0.5                   | <a href="#">ER-512</a>            | 20                                  | 13       | 1.3   | 7.5                                      | 11.5     |
| Thermoseal                  | 2000/2000W                  | 2.0                   | <a href="#">ER-581</a>            | 14                                  | 9        | 0.87  | 6  | 10       |
| Victory Polymers            | VPC-50 OC                   | 0.5                   | <a href="#">ER-674</a>            | 14                                  | 9        | 0.87  | 6  | 10       |

For SI: 1 mil = 0.0254 mm, 1 inch = 25.4 mm, 1 pcf = 16.02 kg/m<sup>3</sup>

Notes:

- Approval of Flame Control 60-60A for use with any insulation product listed herein is conditional upon that insulation product's current approval for use with Flame Control 60-60A. Users shall independently verify the current validity of any evaluation report referenced herein.
- ER – Evaluation Reports from IAPMO Uniform Evaluation Service  
CCRR – Code Compliance Research Reports from Intertek  
ESR – Evaluation Service Reports from ICC-ES  
ESL – Evaluation Service Listing from ICC-ES
- Theoretical coating application rates are based strictly on minimum wet film thickness requirements and shall be increased for site-specific conditions such as foam plastic surface texture, overspray loss, container and other residues, application technique and environmental conditions.