CONTEGO® INTERNATIONAL, INC. PROTECT • SHIELD • DEFEND

PRODUCT DATA SHEET

Contego *High Solids* RFB

Product Description: Contego HS RFB is a water-based, single component Intumescent Fire Resistive Material (IFRM) designed to protect a wide range of building materials.

Substrates Protected	Contego HS RFB
Dimensional Lumber	☑
OSB/Plywood	☑
Polyurethane Foam	☑
Gypsum Board-Drywall	☑
Structural Insulated Panels	☑
Concrete	☑
Aluminum	☑
Structural Steel	☑

Contego HS RFB Product Advantages:

- Exceptional protection from heat and fire.
- Smooth, thin, architectural grade finish.
- Economical and versatile
- Nontoxic, ZERO VOC
- Field and shop application
- Fast drying and fast curing times.
- The longest shelf life in the industry.

Primer

- A complete listing of approved primers can be obtained at Natfire.com

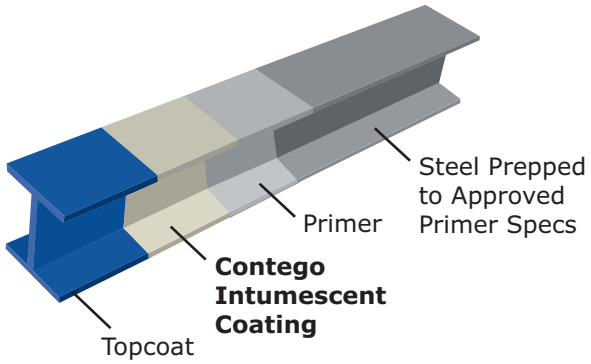
Application Instructions

- Airless Sprayer: 1+ gpm, 3,300 psi
  *Graco Mark V or comparable
- Tip size: .025 minimum
- Hose: 3/8" I.D. - 50' optimal

*Full application instructions available at Natfire.com

Top Coats

- If desired, a top coat may be applied for decorative purposes for interior applications. For exterior application, a top coat is required.



Technical Data:

Net Packaging	57.5 lbs / 26.0 kg (+/- 1%)
Chemical basis	Water-based polymer dispersion
Consistency	Sprayable liquid
Color	White
Surface burning characteristics	Flame Spread 0
Class A (ASTM E-84)	Smoke Development 15
Specific Gravity	1.35 +/- 0.05
pH Range	8.5 - 8.8
Weight/Gal	11.5 +/- 0.3 lbs (5.2 Kgs)*
Hazardous Ingredients	N/A
Volume Solids	67.0 - 69.0%
Weight Solids	68.0 - 72.0%
Viscosity	20,000 - 30,000 cPs
Flammability	Not Flammable
VOC. (less Water)	.07 lbs./gal.

Fire Test Performance

Tested for up to 3 hours Fire Resistance Ratings

- ANSI/UL 263
- CAN/ULC-S101
- ASTM E-119
- Certifire B475
- EN 13381-8:2013
- NFPA 286

UL Listing

- BXUV D603 – Steel Decking
- BXUV Y637 – Wide Flange Columns
- BXUV N644 – Wide Flange Beams

Intertek Listing

- CII/IF 120-01 - HSS Columns
- CII/IF 120-02 - Wide Flange Columns

Code Compliances

- IBC - 2021, 2018, 2015
- ICC-ES Certification #5078, 5314
- 2020 Florida Building Code (FBC, FRC)
- 2022 California Building Code (CBC, CRC, CFC)
- 2020 Los Angeles Building Code (LABC, LARC, LAFC)
- City of Los Angeles

MASTIC AND INTUMESCENT COATING
FIRE RESISTANCE CLASSIFICATION
SEE UL FIRE RESISTANCE DIRECTORY
R38255

Approved No. CF 5303

Contego *High Solids* RFB Specifications

SECTION 078123 - Intumescent Fireproofing
The following is an outline of our specification document. The complete specifications for intumescent fire resistive materials are available on website or upon request.

PART 1 - GENERAL

1.1 **Scope**
1.1.1 This specification covers labor, materials, equipment, and application necessary for, and incidental to, the complete and proper installation of intumescent fire protection for application to steel structures and supports in accordance with all applicable requirements of contract documents.
1.1.2 This specification shall be supplemented by the applicable requirements of building codes, insurance rating organizations and all other authorities having jurisdiction.
1.2 **Section Includes**
1.2.1 Intumescent fire protection material.
1.2.2 Topcoat protective decorative finish.
1.3 **Related Sections**
SECTION 053100 – STEEL DECKING
SECTION 072100 – THERMAL INSULATION
SECTION 078123 – INTUMESCENT FIREPROOFING
1.4 **References**
1.4.1 Underwriters Laboratories (UL) Fire Resistance Directory.
1.4.2 Test Standards
A. UL 263 (ASTM E119) - Fire Tests of Building Construction and Materials.
B. ASTM E84 - Surface Burning Characteristics of Building Materials. Class A Rating Required; Flame Spread Maximum: 0 Smoke Developed Maximum: 15.
C. ASTM 4017 Results of Volatile Organic Compound
" Content - VOC content: 0.07 lbs/gal 8g/L
C. ASTM D2240 – Durometer Hardness (Shore D). Minimum: 66 Shore D.
D. ASTM D2794 – Direct impact resistance of 40 in-lbs and indirect impact resistance of 4 in-lbs.
E. ASTM D4060 – Abrasion Resistance. Maximum: 0.295g/1000 cycles
F. ASTM D4541 – Bond Strength. Minimum: 631 psi
1.4.3 Steel Structures Painting Council (SSPC) Surface Preparation Standards.
1.4.4 Material manufacturer's current published information including, but not limited to, application guide.
1.4.5 AWCI Technical Manual 12-B "Standard Practice for the Testing and Inspection of Field Applied Thin-Film Intumescent Fire-Resistive Materials; an Annotated Guide", Latest Edition.
1.5 **System Description**
1.5.1 The intumescent fire protection materials shall be applied at the required thickness to provide the UL /ASTM fire resistive ratings.
1.6 **Submittals**
1.6.1 Manufacturer's Data: Submit manufacturer's specifications, including certification as may be required to show material compliance with contract documents.
1.7 **Quality Assurance**
1.7.1 Manufacturer - Company specializing in manufacturing fire protection products.
1.7.2 The intumescent fire resistive material shall be manufactured under the Follow- Up Service program of UL or ULC and bear the UL and/or ULC label (mark).

PART 1 - GENERAL Continued

1.7.3 Applicator - A firm with expertise in the installation of fire resistive or similar materials. This firm shall be recognized or otherwise approved by fire resistive material supplier.
1.7.4 Product - The product shall be approved by the architect and applicable authorities having jurisdiction.
1.8 **Delivery, Storage and Handling**
1.8.1 Deliver materials to the project in manufacturer's unopened packages, fully identified as to trade name, type and other identifying data. Packaged materials shall bear the appropriate labels, seals and UL label (mark) for fire resistive ratings and shall be stored at temperature between 45º F - 100º F (7º C -38º C), in a dry interior location away from direct sunlight. PROTECT FROM FREEZING.
1.9 **Project/Site Conditions**
1.9.1 When the temperature at the job site is less than 50º F (10º C), a minimum substrate and ambient temperature of 50º F (10º C) shall be maintained prior to, during, and a minimum of 72 hours after application. If necessary for job schedule, the General Contractor shall provide enclosures and heat to maintain proper temperatures and humidity levels in the application areas.
1.9.2 In enclosed areas, ventilation must not be less than 4 complete air exchanges per hour until the material is dry.
1.9.3 Relative humidity shall not exceed 75% throughout the total period of application and drying for the intumescent fire resistive material, and must not exceed 75% throughout the application and drying for the protective decorative topcoat.
1.10 **Sequencing and Scheduling**
1.10.1 Applicator shall cooperate in the coordination and scheduling of fire protection work to avoid delays in job progress.
1.10.2 The installation of piping, ducts, conduit or other suspended equipment shall not commence until the application of the thin-film fire resistive material is complete in that area.

PART 2 - PRODUCTS

2.1 **Compatible Metal Primer**
2.1.1 Primer shall be approved by manufacturer and applied in full accordance with the primer manufacturer's written instructions.
2.2 **Intumescent Fire Protection System**
2.2.1 The intumescent fire resistive material shall be Contego HS® Intumescent RFB or Contego Original® Intumescent RFB as supplied by Contego International Inc.
2.2.2 Intumescent fire resistive material shall be applied in accordance with drawings and/or specifications, and shall have been tested in accordance with the procedures of UL 263 or ASTM E119 or CAN/ULC-S101. Contego HS® Intumescent RFB or Contego Original® Intumescent RFB

2.3 **Decorative Topcoating**
2.3.1 Topcoat materials shall be as required for color-coding, aesthetics or additional surface protection, and approved by the thin-film fire resistive material manufacturer.

PART 3 - EXECUTION

3.1 **Preparation**
3.1.1 All surfaces to receive thin-film fire resistive material shall be clean, dry and free of oil, grease, loose mill scale, dirt, dust or other materials which would impair bond of the thin-film fire resistive material to the surface. Any cleaning of the surfaces to receive fire resistive material shall be the responsibility of the General Contractor or steel erector, as outlined in the structural steel section.
3.1.2 Confirm compatibility of surfaces to receive thin-film fire resistive material. Steel surfaces shall be primed with a compatible primer approved by the thin-film fire resistive material manufacturer.
3.1.3 Provide masking, drop cloths or other suitable coverings to prevent overspray onto surfaces not intended to be coated with intumescent coating.
3.2 **Application**
3.2.1 The thin-film fire resistive material shall be applied at the required dry film thickness per the appropriate design number.
3.3 **Mock Up**
3.3.1 Before proceeding with the work, the applicator shall apply the thin-film fire resistive material to a section witnessed by the architect's or owner's representative. The application shall be subject to their approval and shall be used as a guide for texture and thickness of finished work.
3.4 **Clean Up and Repair**
3.4.1 Upon completion of installation, all excess material, overspray and debris shall be cleared and removed from the job site.
3.4.2 All patching of and repair to thin-film 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. Patching shall be performed by applicators recognized or otherwise approved by the manufacturer.
3.5 **Inspection and Testing**
3.5.1 In addition to continuous Wet Film Thickness checks performed by applicator during application, the installed intumescent material shall be inspected by a qualified independent testing laboratory for thickness in accordance with the AWCI Technical Manual 12-B "Standard Practice For The Testing and Inspection Of Field Applied Thin-Film Intumescent Fire-Resistive Materials; an Annotated Guide", Second Edition, before application of the topcoat.
3.5.2 The results of the above tests shall be made available to all parties at the completion of each area and approved prior to the application of topcoat.

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A Contego Authorized Distributor

Approved
No. CF 5303