MANUFACTURER'S GUIDE SPECIFICATIONS

SECTION 07 25 00

FIRE RESIST

CCW-705 RS

MECHANICALLY-ATTACHED BLACKOUT MEMBRANE FOR OPEN JOINT RAINSCREEN CLADDING SYSTEMS

CARLISLE® COATINGS & WATERPROOFING

09.10.21

900 Hensley Lane • Wylie TX 75098 • 800-527-7092

MECHANICALLY-ATTACHED BLACKOUT MEMBRANE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. A blackout membrane installed behind exterior wall open joint rain screen cladding.

B. A wind and rain barrier installed over exterior wall insulation.

C. Engineered fabric sheet and accessory products installed in the Project's opaque wall assemblies as indicated on Drawings.

1.02 RELATED SECTIONS

A. Section [07 21 00] - Thermal Insulation

B. Section [07 40 00] – Exterior Wall Cladding

C. Section [_____] Other

1.03 REFERENCES

A. ASTM D 882 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers – Tension

B. ASTM D 4073 Standard Test Method for Tensile-Tear Strength of Bituminous Roofing Membranes

C. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials

D. ASTM E 96 Standard Test Methods for Water Vapor Transmission of Materials.

E. ASTM E 1354 Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter

F. ASTM E 2178 Standard Test Method for Air Permeance of Building Materials.

G. EN-1928 "European Norm" Bitumen, Plastic and Rubber Sheets for Roof Waterproofing - Determination of Water Tightness

H. National Fire Protection Association (NFPA) 285 Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components

1.04 PERFORMANCE REQUIREMENTS

A. Product shall consist of nominal 0.028-inch (28 mils) thickness UV resistant engineered fabric of black or dark gray color. Product shall be printed with manufacturer's brand or have another means of fingerprinting for product identification.

B. Product shall have minimum 50 Perms water vapor permeance, tested to ASTM E 96 desiccant method (A)

C. For Type I, II, III and IV construction: Product shall be tested to NFPA 285 and pass in wall assemblies of the Project or shall pass by engineering judgement.

D. Installed product and accessories shall be recommended by manufacturer for at least 180 days of outdoor exposure.

E. Installed product and accessories shall have an upper service temperature limit of 180°F or higher.

F. Product shall meet the following requirements:

REQUIREMENT	RESULT	TEST METHOD
Air Permeance	Not more than 0.02 L/s*m^2 at 75 Pa (0.004 CFM/ft^2 at 1.57 PSF)	ASTM E-2178
Tensile Strength	Not less than 25 lb_f per inch, machine and cross direction	ASTM D-882
Tear Initiation and Propagation	Not less than 40 lb_f, machine direction and cross direction	ASTM D 4073
UV Resistance	No visible effects after minimum 1,500 h 3,780 kJ/m^2*nm exposure	Weatheromter
Water Resistance	Class W1, before and after aging	EN-1928
Surface Burning Characteristics.	Flame Spread Index: Not more than 25 Smoke Generation Index: Not more than 450	ASTM E 84, sample tested at full coverage, over non-combustible substrate
Measurement of Heat Release Rate by Cone Calorimeter	Effective Heat of Combustion of 27 MJ/kg or less Peak heat release rate of 238 kW/m^2 or less Total heat release rate of 8.8 MJ/m^2 or less	ASTM E 1354, 50 kW/m^2 heat flux.

1.05 SUBMITTALS

A. Provide submittals in accordance with [Section 01 33 00]

B. At bid submission, provide evidence to the Architect of installer qualification by the air barrier manufacturer.

C. Shop drawings showing locations and extent of blackout membrane installation.

D. Vertical and lateral fire propagation evaluation of the Project's exterior wall assemblies containing the product, submit documentation of one of the following:
   1. NFPA 285 test and pass
   2. NFPA 285 pass through engineering judgement
   3. Exemption from the NFPA 285 requirement.

E. Manufacturer's technical data sheets and safety data sheets for product and accessories.

F. Manufacturer's installation instructions.

G. Sample of product and detail flashing minimum 2 inch by 3 inch size.

1.06 QUALITY ASSURANCE

A. Installer Qualifications: Shall be experienced in applying the same or similar materials and shall be specifically approved in writing by Manufacturer.

B. Single-Source Responsibility: Obtain blackout membrane and detail flashing single manufacturer.

C. Product and Accessories shall comply with all state and local regulations controlling use of volatile organic compounds (VOCs).

D. Comply with the provisions of the Owner's building envelope commissioning program in accordance with [Section 01 91 15]

E. Pre-Installation Meeting: Convene [one] [_____] week prior to commencing Work of this Section, in accordance with Section 01 31 19 - Project Meetings.

F. Field-Constructed Mock-Ups: Prior to installation on Project, apply blackout membrane and detail flashing on a mock-up to determine installation technique, component sequence and to become familiar with properties of materials in application.

G. Cooperate and coordinate with the Owner's inspection and testing agency. Do not cover any installed Product unless it has been inspected, tested and approved.

1.07 DELIVERY, STORAGE AND HANDLING

A. Store products in a clean, dry, protected location and within temperature range required by Manufacturer.

B. Dispose of waste in accordance with local, state and federal regulation

1.08 PROJECT CONDITIONS

A. Apply product and accessories within approved ambient and substrate temperature range stated in manufacturer's literature.

B. Do not apply product or accessories over incompatible materials.

C. Observe safety and environmental measures indicated in manufacturer's SDS, and mandated by federal, state and local regulations.

1.09 WARRANTIES: Provide the manufacturer's minimum ten-year material warranty under provisions of [Section 01 78 36 – Warranties]. Warranty shall allow installation of the product behind exterior cladding having open joints up to 2 inches wide and up to 40% exposed area.

PART 2 PRODUCTS

2.01 PRODUCTS AND MANUFACTURERS:

A. Basis of Design: Fire Resist™ CCW-705 RS by Carlisle Coatings & Waterproofing, Incorporated (CCW). 900 Hensley Lane, Wylie, TX 75098. Phone 1-800-527-7092. Website http://www.carlisleccw.com

B. Other equivalent products and manufacturers as approved by Design Professional

2.02 ACCESSORIES: Provide from same manufacturer as air barrier membrane.

A. Detail Flashing: Pressure-sensitive tape consisting of black HDPE film coated with non-asphalt butyl adhesive
   a. CCW: BRT-801
   b. [Other equivalent product by same manufacturer as air barrier membrane]

B. Contact Adhesive:

1. CCW: Travel-Tack or CAV-GRIP™ Aerosol Spray
2. [Others: As specified by air barrier membrane manufacturer]

C. Detail Sealant: 1-part, moisture-cure high-solids
1. Barribond HP
2. [Others as specified by air barrier membrane manufacturer]

2.03 RELATED MATERIALS BY OTHERS

A. Cladding and Insulation Attachment: Hardware for securing cladding and/or exterior insulation which also secures the blackout membrane.
1. Knight Wall Systems
2. Cascadia Clip
3. Cladding Corp
4. Rodenhouse Capped Screws
5. Stick Pins for Mineral Wool Insulation
6. [Others: As approved by membrane manufacturer]

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine substrates, areas, and conditions affecting installation of the blackout membrane for compliance with requirements. Verify that surfaces and conditions are suitable prior to commencing Work of this section. Do not proceed with installation until unsatisfactory conditions have been corrected.

B. Inform Architect [Consultant] [Owner] [General Contractor] in writing of
1. Gaps or obstructions such as steel beams, angles, plates and projections which cannot be spanned or covered by Product or Accessories.
2. Loose or missing exterior insulation
3. Deficiencies in the air and water resistive barrier installation
4. Anticipated problems applying Product and Accessories over substrate.

3.02 INSTALLATION

A. Apply product in opaque wall assemblies as indicated in Project drawings.

B. Fasten product securely in place. Minimize fastener penetrations through the wall by securing the blackout membrane using the same attachment hardware as the exterior cladding and/or exterior insulation.

C. Provide additional fastening as required to secure the product at laps and terminations.

D. Shingle lap sheets. Provide a minimum 6-inch end lap or overlap of neighboring sheets.

E. Seal laps and terminations using either method
   1. Apply minimum 4-inch width detail flashing Prepare surfaces accepting detail flashing with contact adhesive.
   2. Bond membrane terminations and laps with contact adhesive. Then cap membrane edge with a tooled ribbon of detail sealant.

F. Do not block wall assembly weep paths with blackout membrane, detail sealant or detail flashing

G. Cover product and accessories with exterior cladding as soon as schedule allows. Do not leave product or accessories exposed longer than manufacturer's published limit.

END OF SECTION