

SECTION 09 8316 – SPRAYED CELLULOSE ACOUSTICAL INSULATION

PART 1 – GENERAL

1.01 Section Includes

- A. Sprayed cellulose acoustical insulation. (09 83 16)

1.02 Related Items

- A. Clips, hangers, supports, sleeves and other attachments to spray bases are to be placed by other trades prior to the application of sprayed insulation.
- B. Ducts, piping, conduit or other suspended equipment shall not be positioned until after the application of sprayed insulation.
- C. Roof penetrations to be installed prior to application.

1.03 Quality Assurance

- A. Manufacturer must have a current Underwriters Laboratories (UL) Code Evaluation Report.
- B. Manufacturer must be in compliance with the 2009-2021 International Building Code.
- C. Manufacturer must be ISO 9001:2015 Certified.
- D. Manufacturer must be Forest Stewardship Council (FSC) Chain-of-Custody Certified.
- E. Applicator: Licensed by manufacturer.
- F. Manufacturer must subscribe to independent laboratory follow-up inspection services of Underwriters Laboratories and Factory Mutual. Each bag shall be labeled accordingly.
- G. Mock-up: Apply a 100 square foot representative sample to be reviewed by the Architect and/or Owner prior to proceeding.
- H. Manufacturer shall have a minimum 10-year successful performance history of producing and installing spray-applied cellulose on similar projects
- I. Material must be tested in accordance with ASTM E 1042 by a NVLAP accredited testing laboratory.

1.04 Submittals

- A. Submit product data that the product meets or exceeds the following specified requirements.
 - 1. Bond strength shall be greater than 150 psf per ASTM E 736.
 - 2. Product shall be Class 1 Class A per ASTM E 84/ UL 723.
 - 3. Non-corrosive per ASTM C 1149
 - 4. Bond Deflection per ASTM E 759: 6" Deflection in 10' Span – No Spalling or Delamination.
 - 5. R-Value to be 3.70 per inch per ASTM C 518.
 - 6. Comply with 2015 IBC Section 803.12 stability requirements for interior finishes.
 - 7. Meet ASTM C 1149
 - 8. Product shall be Cradle to Cradle® Certified v.3.1 or higher to a minimum certification level of Bronze
 - 9. Product shall be UL GREENGUARD Gold Certified
 - 10. Product must have a publicly available Health Product Declaration (HPD) to 100 PPM
 - 11. Product must have a third-party verified, publicly available, product-specific Environmental Product Declaration per ISO 14025

12. Manufacturer's written certification that product contains no asbestos, fiberglass or other man-made mineral fibers.
13. Copy of manufacturer's ISO 9001:2015 Certification.
14. Minimum Fiber Recycled Content to be 80%.
15. Cannot contain any added Urea-Formaldehyde Resins.

1.06 Delivery, Storage and Handling

- A. Deliver in original, unopened containers bearing name of manufacturer, product identification and reference to U.L. testing.
- B. Store materials dry, off ground, and under cover.
- C. Protect liquid adhesive from freezing.
- D. Water to be potable.

PART 2 – PRODUCTS

2.01 Basis-of-Design

- A. International Cellulose Corporation
12315 Robin Boulevard
Houston, Texas 77045
Phone: (713) 433-6701 or (800) 444-1252
Fax: (713) 433-2029
Website: www.spray-on.com
Email: icc@spray-on.com
- B. For approved applicators contact ICC at (800) 444-1252.
- C. All other manufactures must demonstrate they can meet or exceed project specifications.

2.02 Materials

- A. K-13 Spray-On-Systems.
 1. Color shall be from Manufacturer's standard color chart
 2. Each bag must be labeled with appropriate UL classification and FM markings
 3. Each drum of adhesive must be labeled "SK-2000 adhesive to be used with K-13"

PART 3 – EXECUTION

3.01 Examination

- A. Examine surfaces and report unsatisfactory conditions in writing. Do not proceed until unsatisfactory conditions are corrected.
- B. Verify surfaces to receive spray insulation to determine if priming/sealing is required to insure bonding and/or to prevent discoloration caused by migratory stains.

3.02 Preparation

- A. Provide masking, drop cloths or other satisfactory coverings for materials/surfaces that are not to receive insulation to protect from over-spray.
- B. Coordinate installation of the sprayed cellulose fiber with work of other trades.
- C. Prime surfaces as required by manufacturer's instructions or as determined by examination.
- D. Prime all gypsum board surfaces with high quality, commercial, gypsum board primer

3.03 Installation

- A. Install spray applied insulation according to manufacturer’s recommendations.
- B. Comply with local Building Code requirements.
- C. Flame Spread Index: 5 per ASTM E-84/ UL 723
- D. Smoke Developed 5 per ASTM E-84/ UL 723
- E. Install spray applied insulation to achieve an average NRC of 1.00.

K-13 Sprayed Thermal and Acoustical Insulation on Solid Backing:		
Thickness:	NRC:	R-Value:
1.00"	0.80	3.70
1.50"	0.90	5.60
1.75"	1.00	6.50
2.00"	1.00	7.40
3.00"	1.00	11.10
4.00"	1.05	14.80
5.00"	1.00	18.50
K-13 Sprayed Thermal and Acoustical Insulation on 1.50" Metal Deck:		
Thickness:	NRC:	R-Value:
1.50"	1.05	5.60
3.00"	1.05	11.10
K-13 Sprayed Thermal and Acoustical Insulation on 2" Metal Deck:		
Thickness:	NRC:	R-Value:
1.00"	0.90	3.70
2.00"	1.05	7.40
K-13 Sprayed Thermal and Acoustical Insulation on 3" Metal Deck:		
Thickness:	NRC:	R-Value:
1.00"	0.95	3.70
1.50"	1.00	5.60
2.75"	1.05	10.20

- F. Cure insulation with continuous natural or mechanical ventilation.
 - a. Continuous ventilation must be maintained until the material has properly cured.
- G. Remove and dispose of over-spray.

4.01 Protection

A. Protect finished installation under provision of Division 1.
END OF SECTION 09 8316