# PART 1 – GENERAL

* 1. **Section Includes**
     1. Sprayed cellulose thermal insulation. (07 21 29)
     2. Sprayed cellulose acoustical insulation. (09 83 16)

# Related Items

* + 1. Clips, hangers, supports, sleeves and other attachments to spray bases are to be placed by other trades prior to the application of sprayed insulation.
    2. Ducts, piping, conduit or other suspended equipment shall not be positioned until after the application of sprayed insulation.
    3. Roof penetrations to be installed prior to application.

# Quality Assurance

* + 1. Manufacturer must have a current Underwriters Laboratories (UL) Code Evaluation Report.
    2. Manufacturer must be in compliance with the 2009-2021 International Building Code.
    3. Manufacturer must be ISO 9001:2015 Certified.
    4. Manufacturer must be Forest Stewardship Council (FSC) Chain-of-Custody Certified.
    5. Applicator: Licensed by manufacturer.
    6. Manufacturer must subscribe to independent laboratory follow-up inspection services of Underwriters Laboratories and Factory Mutual. Each bag shall be labeled accordingly.
    7. Mock-up: Apply a 100 square foot representative sample to be reviewed by the Architect and/or Owner prior to proceeding.
    8. Manufacturer shall have a minimum 10-year successful performance history of producing and installing spray-applied cellulose on similar projects
    9. Material must be tested in accordance with ASTM E 1042 by a NVLAP accredited testing laboratory.

# Submittals

* + 1. 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

1. Deliver in original, unopened containers bearing name of manufacturer, product identification and reference to U.L. testing.
2. Store materials dry, off ground, and under cover.
3. Protect liquid adhesive from freezing.
4. Water to be potable.

# PART 2 – PRODUCTS

* 1. **Acceptable Manufacturers**
     1. 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](http://www.spray-on.com/) Email: [icc@spray-on.com](mailto:icc@spray-on.com)

* + 1. For approved applicators contact ICC at (800) 444-1252.

# Materials

* + 1. K-13 Spray-On-Systems.
       1. Color shall be from Manufacturer’s standard color chart or custom color as noted
       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

* + - * 1. **Examination**

Examine surfaces and report unsatisfactory conditions in writing. Do not proceed until unsatisfactory conditions are corrected.

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.

# Preparation

Provide masking, drop cloths or other satisfactory coverings for materials/surfaces that are not to receive insulation to protect from over-spray.

Coordinate installation of the sprayed cellulose fiber with work of other trades.

Prime surfaces as required by manufacturer’s instructions or as determined by examination.

Prime all gypsum board surfaces with high quality, commercial, gypsum board primer

# Installation

# Install spray applied insulation according to manufacturer’s recommendations.

1. Comply with local Building Code requirements.
2. Install spray applied insulation to achieve an average R-Value of .
3. Install spray applied insulation to achieve an average NRC of .

|  |  |  |
| --- | --- | --- |
| **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 |

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

# Protection

* + 1. Protect finished installation under provision of Division 1.

END OF SECTION