

Product Guide Specification

SECTION 15825 AIR DUCT SEALANTS



PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Air duct sealants for permanently sealing fabricated joints and seams of HVAC air ducts and thermal insulation.

1.2 RELATED SECTIONS

- A. Section 15080 – Duct Insulation.
- B. Section 15810 – Ducts.
- C. Section 15820 – Duct Accessories.

1.3 REFERENCES

- A. ASTM D 1310 – Standard Test Method for Flash Point and Fire Point of Liquids by Tag Open-Cup Apparatus.
- B. ASTM D 1668 – Standard Specification for Glass Fabrics (Woven and Treated) for Roofing and Waterproofing.
- 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 D-6886 - Standard Test Method of Volatile Organic Compounds (VOC) in Low VOC Content Waterborne Air-Dry Coatings by Gas Chromatography
- F. UL 181 – Factory Made Air Ducts and Air Connectors.
- G. UL 181A – Closure Systems for Use with Rigid Air Ducts and Air Connectors.
- H. UL 181B – Closure Systems for Use with Flexible Air Ducts and Air Connectors.
- I. CDPH Standard Method v1.2 - Standard Method For The Testing and Evaluation Of Volatile Organic Chemical Emissions From Indoor Sources Using Environmental Chambers Version 1.2.

1.4 SUBMITTALS

- A. Comply with Section 01330 – Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including physical properties, surface preparation, and application instructions.
- C. Warranty: Submit manufacturer's standard warranty.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

- B. Storage:
 1. Store materials in clean, dry area indoors in accordance with manufacturer's instructions.
 2. Storage Temperature: 45° F. to 90° F. (7.2° C. to 32.2° C.)
 3. Protect from freezing.
- C. Handling: Protect materials during handling and application to prevent contamination or damage.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply below 40° F. or above 125° F. (4.5° C. or above 51.6° C.)

PART 2 PRODUCTS

2.1 MANUFACTURER [View RCD Corporation's Product Brochure](#)

- A. RCD Corporation®, 2850 Dillard Road, Eustis, Florida 32726.
 voice: (352) 589-0099; website: www.rcdmastics.com; email: info@rcdcorp.com

2.2 AIR DUCT SEALANTS

- A. Low to High Velocity Air Duct Sealant: [RCD Corporation® #7 Mastic®](#)
 1. Description: Water-borne, non-flammable, low odor, LEED qualified, UL listed, weather resistant, cellulose fiber-reinforced, sealant for permanently sealing fabricated joints and seams of thermal insulation and all air duct types including UL 181 Listed air ducts. Manufactured in the U.S.A.
 2. Type: Elastomeric polymer emulsion.
 3. UL Listed: UL 181A-M and UL 181B-M: 28DF.
 4. Intertek Clean Air Gold: Certified
 5. Solids by Weight: 73%, plus or minus 2%.
 6. Weight per Gallon: 12.0 lbs., plus or minus 0.30 pounds.
 7. Wet Film Coverage: 320 lineal ft./gallon at 30 mils thickness by 3 inches wide.
 8. Consistency: Thixotropic, non-sagging paste.
 9. Cure to: 4 lbs./inch tensile joint strength at 50% relative humidity and 75° F.: 5 hours.
 10. Service Temperature Limits: -10° F. to 200° F. (-23.3° C. to 93.3° C.)
 11. Water Vapor Transmission, ASTM E-96: 0.65 perms.
 12. SMACNA Pressure Class: 0.5 to 10 inches water gauge.
 13. SMACNA Seal Classes: A, B, and C.
 14. Flash Point, Tag Open Cup, ASTM D-1310: None.
 15. Volatile Organic Compounds (VOC), ASTM D-6886: Less than 50 grams/liter.
 16. Total Volatile Organic Compound (TVOC), CDPH V1.2: 0.5mg/m³ or less.
 17. LEED v4/v4.1/v5: Contributes to LEED Credit Requirements
 18. Packaging: 1-gallon plastic pails

2.3 ACCESSORIES

- A. Reinforcing Membrane (fiberglass mesh) to reinforce joints and seams: RCD Corporation® Glasscoat®.
 - 1. Description: Inorganic fiberglass mesh, with pressure-sensitive adhesive on one side.
 - 2. Compliance: ASTM D-1668, Type III.
 - 3. Nominal Dry Weight: 1.6 to 2.0 ounces per square yard.
 - 4. Thickness: 7 to 8 mils.
 - 5. Width: 3 inches.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to receive air duct sealants.
- B. Notify Architect of conditions that would adversely affect application.
- C. Do not begin surface preparation or application until unacceptable conditions are corrected.

3.2 SURFACE PREPARATION

- A. Prepare surfaces in accordance with manufacturer's instructions.
- B. Remove corrosion, dirt, dust, grease, loose or chalking paint, mold, mildew, oil, scale, silicone and water from surfaces to receive air duct sealants.

3.3 APPLICATION

- A. Apply air duct sealants to sheet metal air ducts, UL 181-listed rigid fiberglass air ducts, UL 181-listed flexible air ducts, thermal insulation, and other surfaces in accordance with manufacturer's instructions. Do not apply below 38° F.
- B. Do not dilute or mix sealants.
- C. Apply tack coat of 15 mils wet thickness.
- D. If reinforcing membrane is used, embed into tack coat.
- E. Apply finish coat of 15 mils wet thickness.
- F. Drying Time:
 - 1. Allow minimum of 6 hours drying time when used outdoors, if wet weather is imminent.
 - 2. Allow minimum of 16 hours drying time before using air duct system.
 - 3. Allow additional drying time as required by air temperature and humidity conditions.

3.4 PROTECTION

- A. Protect applied air duct sealants from damage during construction.

END OF SECTION

