RCD Corporation®
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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.
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2.2 AIR DUCT SEALANTS

A. Low to High Velocity Air Duct Sealant: RCD Corporation® #10 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:	60%, plus or minus 2%.
6.	Weight per Gallon:	10.7 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:	0° F. to 200° F. (-17.7° C. to 93.3° C.)
11.	Water Vapor Transmission, ASTM E-96:	0.65 perms.
12.	SMACNA Pressure Class:	0.5 to 8 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 38º 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