

## ITW TACC – MIRACLE KINGCO D-619 Guide Specification

### SECTION 233363

#### DUCT SEALANT

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. This Section includes duct sealant.

##### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Certificates:
  1. GREENGUARD Children & Schools.
  2. GREENGUARD Indoor Air Quality.
  3. SCAQMD (South Coast Air Quality Management District), Rule 1168.
  4. California Air District Regulations.
  5. Ozone Transport Commission (OTC) model Rule for Adhesives and Sealants.
  6. SMACNA Seal Classes A, B, C.
  7. UL 181B-M.

##### 1.3 REGULARY REQUIREMENTS

- A. SCAQMD (South Coast Air Quality Management District), Rule 1168.
- B. California Air District Regulations (City of Los Angeles Approved: RR7988).
- C. Ozone Transport Commission (OTC) model Rule for Adhesives and Sealants.

#### PART 2 - PRODUCTS

##### 2.1 MANUFACTURERS

- A. Duct Sealant:
  1. Miracle Kingco D-619 manufactured by ITW TACC (Basis of Design).
    - a. 56 Air Station Industrial Park, Rockland, MA 02370.
  2. Or equal.

## 2.2 DUCT SEALANT

### A. Description:

1. Water based sealant designed for indoor and outdoor use on all conventional flexible heating and air conditioning duct systems. These systems can be metal or fiberglass and can be high, medium, or low pressure or velocity.

### B. Advantages:

1. Highly resistant to mold, mildew, water, extreme temperature changes and aging.
2. Resistant to oil or grease and mildly resistant to diluted alkalis and acids.
3. Easy to apply, smooth consistency.
4. Exhibits excellent strength, flexibility and resistance to heat and cold.

### C. Physical Properties:

1. Base: Synthetic Polymer.
2. Solvent: Water.
3. Solids: 67.0 +/- 2.0%.
4. Weight/Gallon: 10.75 lbs/gallon.
5. VOC Content: 66.3 g/L (EPA Method 24).
6. Shelf Life: 12 months, unopened.
7. Viscosity: 150,000-180,000 cps.
8. Flashpoint: N/A.
9. Open Time: 1 hour.
10. Dry Time: 24-48 hours.
11. Color: Gray.
12. Coverage: Up to 200 sq ft/gal depending on application, engineering requirements, porosity of substrates.
13. Formaldehyde: No urea formaldehyde added during adhesive manufacturing.
14. ASTM C-411 "Hot Surface Performance of High Temperature Thermal Insulation": After 96 hours @ 250° F, no cracking, peeling, chalking, or other signs of physical failure.
15. ASTM D-2202 "Slump Test" 0.0 inches.
16. ASTM C-732 "Aging Effects of Artificial Weathering on Latex Sealants": After 500 hours, no change in the product.
17. Meets requirements of NFPA 90A and 90B.

### D. Listed by Underwriters Laboratories Inc.:

1. 181B-M 2R59:
  - a. Classified: Adhesive R-6891 UL 723 Classified (ASTM E-84).
  - b. Surface burning characteristics applied to inorganic reinforced cement board.
  - c. Flame Spread: 5.
  - d. Smoke Developed: 0.
  - e. Tested as applied at a coverage rate of 80 sq ft/gallon. Flash point of liquid adhesive; closed cup; no flash to boiling.

### E. Certification:

1. GREENGUARD Children & Schools Certified.
2. GREENGUARD Indoor Air Quality Certified.
3. Meets SMACNA Seal Classes A, B, C.

- F. Contributes to LEED and other green building rating system credits:
  - 1. LEED-NC and LEED-CI EQ Credit 4.1.
  - 2. LEED for Schools EQ Credit.
  - 3. LEED Core & Shell EQ Credit 4.1.
  - 4. LEED-EB MR Credit 3.
  - 5. CHPS (Collaborative for High Performance Schools) EQ Credit 2.2.
  - 6. Green Guide for Health Care EQ Credit 4.1.
  - 7. NAHB Model Green Home Bldg Guidelines – Sect 7, Global Impact 7.1.3.

## PART 3 - EXECUTION

### 3.1 APPLICATION, GENERAL

- A. Comply with sealant manufacturer's written instructions for installation.
- B. Thoroughly mix, taking care to scrape sides and bottom of container before application.
- C. Do not add water. To reduce viscosity, stir thoroughly.
- D. Close container after each use.
- E. Use a good remover to prepare a clean surface, free from grease, oil and dirt.
- F. Loose particles and scale shall be removed with a wire brush.
- G. Material may be applied with a brush, roller, trowel or putty knife. Clean tools immediately with water.

### 3.2 SEALANT APPLICATION

- A. Sealing UL 181B Air Ducts: Surfaces should be free of dirt, oil or grease. Using a brush or trowel, apply a 3 inch wide band of mastic around the collar at a coverage rate of 200 sq ft / gal.
- B. Sealing Metal Ducts: Surfaces should be free of dirt, oil or grease. Apply by brush, caulking gun, trowel or hand.

END OF SECTION 233363