

SUBMITTAL RECORD _____
 JOB _____
 LOCATION _____
 SUBMITTED TO _____
 SUBMITTAL PREPARED BY _____
 APPROVED BY _____
 DATE _____



Submittal Form DuroSeal® EDS-RF Fiber Reinforced Water Based Duct Sealers

DESCRIPTION

Wherever there are seams or joints in ductwork or the sidewalls of the duct are pierced, the potential for air leakage exists. Besides contributing to energy waste, leaks can also create noise. Sealing of ductwork can be accomplished with the use of a viscous material which fills gaps and conforms to the surface without running.

Our fiber reinforced Water Based Duct Sealers are designed for use in high velocity air conditioning, refrigeration, ventilating, and air distributing systems up to 12 w.g. They are suitable for use in both indoor and outdoor applications and exceeds all SMACNA Pressure and Sealing Classes.

FEATURES

- UL Listed 181A-M & 181B-M
- Indoor/Outdoor Use
- Mold & Mildew Resistant
- Exceeds all SMACNA Pressure and Sealing Classes
- Low, medium and high pressure applications up to 12 w.g.
- Paintable once cured
- Qualifies for LEED EQ Credit 4.1
- Fast Dry Time
- Water Based

TYPICAL PROPERTIES

Type: Vinyl Acetate

Solids: 74% +/- 1%

Weight: 12.3 +/- .3 lbs. per gallon

Color: Slate Grey or White

VOC: 0

Viscosity: 200,000 – 300,000 CPS, Brookfield Spindle #6 @ 10 RPM, 75°F (24°C) – 79°F (26°C).

Flame Spread: 5 **Smoke Developed:** 0

Freeze Cycles: 5 cycles

Storage Life: Minimum 24 months @ 72°F (22°C)

Clean With: Water & Mild Soap

Coverage: Gallon - Up to 90-100 sq. feet per gallon at a 20-30 mil. thickness

Cartridge - Up to 11 linear feet when applied at a thickness of 3/8" and a width of 3/8".
 - Up to 30 linear feet when applied at a thickness less than 3/8" and a width of 3/8".

Cure Time: Skins over in 3 hours; allow 24 to 72 hours dry time before pressure testing.

Application Temperature: 40°F (4°C) - 110°F (43°C)

Storage Temperature: 35°F (2°C) - 110°F (43°C), in original container.

Service Temperature: -40°F (4°C) - 200°F (93°C)



181A-M: FOR USE WITH UL LISTED RIGID FIBERGLASS AIR DUCTS OR CONNECTORS.

181B-M: FOR USE WITH UL LISTED FLEXIBLE AIR DUCTS OR CONNECTORS.

File #: MH65765

ITEM#	CODE	DESCRIPTION
5230	EDS-RF1	Gray Fibered Duct Sealer- 1 Gallon Pail
5232	EDS-RFC	Gray Fibered Duct Sealer- Cartridge

SUGGESTED SPECIFICATIONS

All potential points of leakage on the ductwork shall be sealed with a fiber reinforced water based duct sealer coded EDS-RF as manufactured by Duro Dyne.

RELATED SMACNA RECOMMENDATIONS*

1.4.1 - Duct Sealing

Ducts must be sufficiently airtight to ensure economical and quiet performance of the system. It must be recognized that airtightness in ducts cannot, and need not, be absolute (as it must be in a water piping system). Codes normally require that ducts be reasonably airtight. Concerns for energy conservation, humidity control, space temperature control, room air movement, ventilation, maintenance, etc., necessitate regulating leakage by prescriptive measures in construction standards. Leakage is largely a function of static pressure and the amount of leakage in a system is significantly related to system size. Adequate airtightness can normally be ensured by a) selecting a static pressure, construction class suitable for the operating condition, and b) sealing the ductwork properly.

The designer is responsible for determining the pressure class or classes required for duct construction and for evaluating the amount of sealing necessary to achieve system performance objectives. It is recommended that all duct constructed for the 1 in. (250 Pa) and 1/2 in. (125 Pa) pressure class meet Seal Class C. However, because designers sometimes deem leakage in unsealed ducts not to have adverse effects, the sealing of all ducts in the 1 in. (250 Pa) and 1/2 in. (125 Pa) pressure class is not required by this construction manual. Designers occasionally exempt the following from sealing requirements: small systems, residential occupancies, ducts located directly in the zones they serve, ducts that have short runs from volume control boxes to diffusers, certain return air ceiling plenum applications, etc. When Seal Class C is to apply to all 1 in. (250 Pa) and 1/2 in. (125 Pa) pressure class duct, the designer must require this in the project specification. The designer should review the *HVAC Air Duct Leakage Test Manual* for estimated and practical leakage allowances.

Seven pressure classes exist [1/2 in. (125 Pa), 1 in. (250 Pa), 2 in. (500 Pa), 3 in. (750 Pa), 4 in. (1000 Pa), 6 in. (1500 Pa), and 10 in. wg (2500 Pa)]. If the designer does not designate pressure class for duct construction on the contract drawings, the basis of compliance with the SMACNA *HVAC Duct Construction Standards* is as follows: 2 in. wg (500 Pa) for all ducts between the supply fan and variable volume control boxes and 1 in. wg (250 Pa) for all other ducts of any application.

Some sealants can adversely affect the release function of breakaway connections to fire dampers; consult the damper manufacturer for installation restrictions.

Table 1-1 Standard Duct Sealing Requirements

Seal Class	Sealing Requirements	Applicable Static Pressure Construction Class
A	Class A: All Transverse joints, longitudinal seams, and duct wall penetrations	4 in. wg and up (1000 Pa)
B	Class B: All Transverse joints and longitudinal seams only	3 in. wg (750 Pa)
C	Class C: Transverse joints only	2 in. wg (500 Pa)
In addition to the above, any variable air volume systems duct of 1 in. (250 Pa) and 1/2 in. wg (125 Pa) construction class that is upstream of the VAV boxes shall meet Seal Class C		

*From SMACNA *HVAC Duct Construction Standards Metal and Flexible • Third Edition • 2005*

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Technical Bulletin:

DuroSeal on duct systems – Internally or Externally

EDS RS and EDS RF DuroSeal Duct Sealers from Duro Dyne are UL 181 listed and formulated to meet all SMACNA pressure and sealing classes. They are designed and manufactured to be applied internally or externally, in or around the duct system, and are fortified to resist microbial attacks to the wet or cured film.

There are no VOC's present in Duro-Dyne's duct sealants in the wet or cured state, that have or will have any harmful effects on humans or other species when applied internally or externally on any type of duct system (i.e. sheet metal, duct board, flexible duct, etc.).

Per UL 181 standards, please allow the sealant to reach full cure, 48 to 72 hours, contingent upon temperature and humidity, prior to start up of the system.

If you have any further questions or need additional clarification, please contact Duro-Dyne at 631-249-9000.