

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



Specification Form SGDLVOC Solvent Based Duct Sealer

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.

SGDLVOC is a solvent based Low VOC sealer designed for use in high velocity air conditioning, refrigeration, ventilating, and air distributing systems. It provides excellent strengths and sealing against pressure losses in duct systems. Best results are obtained when used in conjunction with Duro Dyne's FT-2 membrane tape.

FEATURES

- Water resistant
- Solvent based
- Fire Resistant
- Supports No Mildew Growth
- Excellent Water Resistance
- Superior Sealing Strength
- Exceptional Workability
- Will Not Drip or Sag
- Mild Solvent Odor
- Low Shrinkage
- Fast Curing
- Oil Resistant

TYPICAL PROPERTIES

Type: Elastomer Rubber
Solids: 57%
Weight: 9.0 lbs./gal.
Color: Gray
Odor: Mild
VOC: 1.88 lbs./gal or 225g/liter (1 Gallon)
 <4% by weight (10 Ounce Tube)
Viscosity: 200,000 - 220,000 TF @ 5RPM
Coverage: Approximately 50 to 75 sq. ft. per gallon.
Flammability: Wet: Flash Point 0°F (-18°C)
 THRESHOLD LIMIT OF SOLVENT VAPOR (TLV): 50 ppm
Service Temperature: -20°F to 190°F (-28.9°C to 88°C)
Application Temperature: 0°F - 110°F (-18°C and 43°C)
Effect of Freezing: None
Storage Life: 1 year
Clean With: Xylol, MEK, or Trichloroethylene.
Cure Time: Touch: 15 minutes. Through: 48 hours. Allow at least 24 hours before pressure testing. The drying time depends on the temperature, humidity and film thickness.
Method of Application: Stiff brush, putty knife or caulking gun.
Suitable for use outdoors. If the sealant is going to be directly exposed to U.V. rays its service life can be extended by painting the sealant with a coat of exterior grade latex paint.

ASTM E84

Standard Test Method For Surface Burning Characteristics of Building Materials (ANSI 2.5, NFPA 255, UBC 8-1, UL 723)
 Applied to Inorganic Reinforced Cement Board

FLAME SPREAD 5
SMOKE DEVELOPED 0

Tested as applied in 2 3/8" (.95cm) wide beads, 12" (.3m) OC at a coverage rate of 30 ft²/gal. (.737 m²/L)

ITEM#	CODE	DESCRIPTION
5140	SGD1LVOC	SGD - 1 Gallon Pail
5141	SGD5LVOC	SGD - 5 Gallon Pail
5142	SGDCLVOC	SGD Cartridge

SUGGESTED SPECIFICATIONS

All potential points of leakage on the ductwork shall be sealed with a solvent based duct sealer coded SGDLVOC as manufactured by Duro Dyne Corporation.

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.

SPECIFICATION COMPLIANCE

Meets LEED requirements IEQ 4.1, low emitting materials, adhesives and sealants NFPA 90A & 90B
 U.S. Department of Agriculture chemically acceptable as a sealant for ductwork.

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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