

SEALITE[™] OCX[®] SPRAY FOAM SYSTEM (12-005)

DESCRIPTION:

Sealite[™] OCX is a two component, one-to-one by volume, low density open cell polyurethane spray foam system. The foam is self-adhering, seamless, air impermeable insulation. Sealite[™] OCX has been formulated with water as the blowing agent and does not contain CFC, HCFC, HFC or formaldehyde. Sealite[™] OCX is used as a nonstructural thermal insulating material in Type I, II, III, IV, & V construction. Sealite[™] OCX is approved for application in limited access attic spaces with no additional ignition barrier covering

DISTINGUISHING CHARACTERISTICS:

- High Yields
- Outstanding Dimensional Stability
- Excellent Air Barrier
- Good Sound Barrier
- Meets ASTM E-84, FS ≤ 25, SD ≤ 450 @ 4"
- Passed AC 377 Appendix X w/o ignition barrier
- Evaluated for code compliance in Type I, II, III, IV & V construction
- Eliminates Convective Air Movements inside the building assemblies

For proper use of this NCFI insulating material refer to the NCFI Application Information and any of the following codes or guides:

- International Building Code, Section 2603
- International Residential Code, Section R316
- API Fire Safety Guidelines for Use of Rigid Polyurethane and Polyisocyanurate Foam Insulation in Building Construction (AX230)

Installation Limitations

Sealite[™] OCX may be installed to any desired thickness when separated from the interior of the building by code prescribed 15 minute thermal barrier. Sealite[™] OCX is approved up to 11" thickness (R 39) on the walls and ceilings in unvented attics and in crawlspaces with no additional ignition barrier covering.

TYPICAL PHYSICAL PROPERTIES:

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|---|--|
| Core Density - ASTM C 1622 | 0.5 pcf |
| Moisture Vapor Transmission - ASTM E 96 | 7.8 perm @ 5.5" |
| Air Leakage @ 3.5" ASTM E 283 @ 75 PA | Infiltration 0.005 L/s/m ² Exfiltration 0.006 L/s/m ² |
| R-Value @ 3.5" R-Value @ 5.5" R-Value @ 10.5" ASTM - C 518 | R 13 R 20 R 38 |
| Tensile Strength ASTM D1623 | 3.4 lb/in ² |
| VOC Emissions | Negligible |
| Fungi Resistance ASTM C 1338 | No Growth |
| Maximum Service Temperature | 180°F |
| Flammability - ASTM E-84 | <u>4 inch</u> Flame Spread ≤ 25 Smoke Dev ≤ 450 |

Note: The above values are average values obtained from laboratory experiments and should serve only as guide lines. Free rise core density should not be confused with overall density. Overall densities are always higher than free rise core densities and take into account skin formation, thickness of application, environmental conditions, etc.

Polyurethane products manufactured or produced from this liquid system may present a serious fire hazard if improperly used or allowed to remain exposed or unprotected. The character and magnitude of any such hazard will depend on a broad range of factors, which are controlled and influenced by the manufacturing and production process, by the mode of application or installation and by the function and usage of the particular product. **Any flammability rating contained in this literature is not intended to reflect hazards presented by this or any other material under actual fire conditions. These ratings are used solely to measure and describe the product's response to heat and flame under controlled laboratory conditions.** Each person, firm or corporation engaged in the manufacture, production, application, installation or use of any polyurethane product should carefully determine whether there is a potential fire hazard associated with such product in a specific usage, and utilize all appropriate precautionary and safety measures.

Sealite™ OCX APPLICATION INFORMATION (12-005)

EQUIPMENT AND COMPONENT RATIOS:

It is preferred that this system be processed with Polyurethane Spray Equipment capable of the following operating parameters. Sealite™ OCX R-side is connected to the resin pumps with Sealite™ OCX A-side connected to the isocyanate pumps. The proportioning pump ratio is 1 to 1. Dispensing temperature should be set between 120-140°F for automatically controlled machinery to give a good pattern. Application pressure should be set 1100-1500 psi. Mixing chambers should be 02 or smaller. For additional assistance contact NCFI Polyurethanes technical services.

STORAGE AND USE OF CHEMICALS:

The recommended storage should be 55 - 90°F. Do not store in direct sunlight. Keep drums tightly closed when not in use. Use desiccant air drying canister on the A side drum when in use and store it with dry air or nitrogen pressure of 2-3 psi after opening to prevent moisture contamination. Cool storage of the resin extends shelf life. Exposure to temperatures above 85°F will shorten the expected shelf life. Store above 35°F, keep temperature of chemicals near 70°F for several days before use. Cold chemicals can cause poor mixing, pump cavitation or other process problems due to higher viscosity at lower temperatures. The shelf life of properly stored material is six months.

SAFE HANDLING OF LIQUID COMPONENTS:

Use caution in removing bungs from the container. Loosen the small bung first and let any built up gas escape before completely removing. Avoid prolonged breathing of vapors. In case of chemical contact with eyes, flush with water for at least 15 minutes and get medical attention. For further information refer to "MDI-Based Polyurethane Foam Systems: Guidelines for Safe Handling and Disposal" publication AX-119 published by the Center for the Polyurethanes Industry 1300 Wilson Blvd, Suite 800, Arlington, VA 22209.

AGITATION INSTRUCTIONS FOR Sealite™ OCX:

Stabilize the R-side temperature within the recommended in-use temperature range of 60-90°F. Mix the R side a minimum of 30 minutes with an electric mixer at 700-800 rpm before spraying. After pre-mixing, cycle the R side chemical in the hose and pump lines back into the R side drum, or sprayed out test sample using enough pump strokes to clear the lines from the drum pump to the hose coupling block. Continue mixing during the spray application. The mixer should have a threaded base which is compatible with the 2" bung opening. An example of an acceptable mixer is a 1/3 hp Leeson (model C4C17FC9C). This particular model would be operated 50% of the variable speed drive. The maximum delay in spraying is 2 hours. During any suspension of spraying, maintain pump pressure and temperature on the hose.

Recirculate the hose chemicals as directed above for any period of no spraying over 2 hours, or the pressure and temperature is required to be shut off. If there are any questions regarding this instruction, contact NCFI.

SPECIAL HANDLING NOTICE

Care should be taken to avoid the introduction of any other chemical system (such as closed cell spray foams) into the R side drum of 12-005. We strongly recommend, at a minimum, the use of a dedicated stainless steel transfer pump for this material to avoid the possibility of cross contamination. User should expect that there will be a degree of waste in spraying out the changeover between closed cell to open cell foams. Under no circumstances should the user bleed out spray lines of these incompatible foams back into the drum.

PREPARATION OF SURFACE TO BE SPRAYED:

All surfaces to be sprayed should be clean, dry, and free of dew or frost. All metal to which foam is to be applied must be free of oil, grease, etc. The foam can be installed at a maximum per pass thickness equal to the installed thickness.

No flammable chemicals, such as wasp and hornet sprays, should be sprayed in the area of the foam application 24 hours before the application. No such chemical can be sprayed after the foam application until the foam has cooled to room temperature.

OPTIMUM ADHESION TEMPERATURE OF SURFACE TO BE SPRAYED:

On general work where the surface to be sprayed will remain at ambient temperature or cooler, the surface should be between 50°F and 120°F. In this range the warmer the surface the better the adhesion. In some cases the surface may require a primer. When surfaces are cooler than the optimum range, the spray applicator should spray a test area approximately 100 square feet and check for proper adhesion and cell structure. If both are satisfactory, then the spray application may continue. Applicators should check the foam cell structure and adhesion. Substrate and atmospheric temperatures may require adjustment of the equipment temperature and pressure setting to optimize the spray foam application.

CODE-COMPLIANT FIRE RESISTANCE:

Where foam is sprayed over areas of building interiors, building codes require the installation of an approved thermal barrier between the foam plastic insulation and the occupied space. 1/2" gypsum board or other tested and approved materials may be installed as a thermal barrier. Refer to specific building codes for details. Contact NCFI Polyurethanes for specific alternate approvals for 12-005

The information on our data sheets is to assist customers in determining whether our products are suitable for their applications. The customers must satisfy themselves as to the suitability for specific cases. NCFI warrants only that the material shall meet its specifications; this warranty is in lieu of all other written or unwritten, expressed or implied warranties and NCFI expressly disclaims any warranty of merchantability, fitness for a particular purpose, or freedom from patent infringement. Accordingly, buyer assumes all risks whatsoever as to the use of the material. Buyer's exclusive remedy as to any breach of warranty, negligence or other claim shall be limited to the purchase price of the material. Failure to adhere strictly to any recommended procedures shall relieve NCFI of all liability with respect to the material or the use thereof.

Sealite™OCX Insulation Fact Sheet (12-005)

| R-Values* | |
|--|--|
| Thickness (inches) | R-Value (°F·hr·ft ² / Btu) |
| 3.5 | 13 |
| 5.5" | 20 |
| 8" | 30 |
| 10.5 | 38 |
| <p>*Note: As with all insulating materials, the R-value will vary with age and use conditions.</p> | |

VENTILATION OF SPRAY AREA:

Spraying foam will generate a mist and fumes with a distinct odor. For interior applications the building area must be vented with fresh air to dissipate the odor. The amount of air flow and time for venting will vary based on each situation.

A closed attic area may require fans to force air into and out of the space. An open building that does not have the doors and windows installed may have sufficient air flow to vent the odor fairly quickly. Reentry time for closed-in areas being vented with fans is typically about 24 hours. Other workers should remain out of the immediate area during this venting time period.

APPLICATION AROUND PLASTIC PIPES:

Based on a series of studies, the Sealite™OCX system can be applied in contact with PVC, CPVC, ABS, PP-R and PEX plastic pipes. The pipes must not be pressurized during the foam application. The maximum per pass thickness is 6". The total foam thickness is limited to that thickness permitted in that area of the building assembly.

APPLICATION AROUND ELECTRICAL WIRES:

Based on NCFI testing, the Sealite™OCX system can be applied in contact with electrical wires. Spray foam applicators must spray the foam in such a manner that the expanding foam does not stretch and distort the wires. Light gauge wires which will be

encapsulated in the foam layer should have the foam installed behind the wires and allowed to cool prior to applying a top layer to cover the wire.

VAPOR BARRIER PROTECTION:

In most instances a vapor barrier/retarder must be used with the application of Sealite™OCX. Please consult the local building codes for information or contact NCFI Polyurethanes for recommendations.

OTHER APPLICATION AND SAFETY CONSIDERATIONS:

Before Sealite™OCX is to be applied, there are many safety and application situations to consider. All spray foam applicators must evaluate the job prior to beginning the spray foam application. It is impossible to anticipate every issue and provide explicit guidance in this product data sheet. If there is a question regarding some aspect of the planned application, consult with NCFI for more guidance. The NCFI Product Stewardship Manual contains additional information and should be reviewed often enough by all spray foam applicators to remain familiar with the contents. The American Chemistry Council (ACC), the Center for Polyurethanes Industry (CPI) and the Spray Polyurethane Foam Alliance (SPFA) also publish information regarding the safe handling and application of spray foam chemicals. If there are any questions regarding the application of the Sealite™OCX system, contact an NCFI representative.

Read This Before You Buy
 What you should know about R values

The chart shows R value of this insulation. R value means resistance to heat flow. The higher the R value, the greater the insulating power. Compare insulation R values before you buy. There are other factors to consider. The amount of insulation you need depends mainly on the climate you live in. Also, your fuel savings from insulation will depend upon the climate, the type and size of your house, the amount of insulation already in your house, and your fuel use patterns and family size. If you buy too much insulation, it will cost you more than what you'll save on fuel. To get the marked R-value, it is essential that this insulation be installed properly.