

EnviroSeal

by Quadrant



TECH DATA SHEET

EnviroSeal™ CC is a two-component, medium-density closed-cell spray polyurethane foam (ccSPF) insulation system. It offers outstanding thermal performance, superior moisture resistance, and exceptional yield, making it a top choice for both residential and commercial applications. Designed with environmental responsibility in mind, EnviroSeal CC features a Global Warming Potential (GWP) of 1 and an Ozone Depletion Potential (ODP) of 0. It is available in both summer and winter formulations to accommodate varying climate conditions.

Application Guidelines

EnviroSeal CC must be applied using commercially available spray equipment designed for this purpose by an approved applicator. The recommended maximum application thickness is 3" per pass, with the core temperature of the first layer monitored to ensure it remains below 100°F before proceeding with additional layers. This process should be repeated for each subsequent pass to allow proper heat dissipation. When applying foam over heat-sensitive materials (such as PEX piping or low-voltage wiring), apply a maximum of 1" per pass and allow it to fully cool before adding additional layers.

To prevent UV degradation, the applied foam must be protected from sunlight within 90 days of installation. Apply EnviroSeal CC only when ambient and surface temperatures fall within the manufacturer's specified range. To minimize condensation risks, ambient humidity should not exceed 80%, and substrate temperatures must be at least 5°F above the dew point before application.

Fire Test Data

| Attribute | Test | Results |
|----------------------------------|-------------|--------------------------|
| Flame Spread | ASTM E84 | <25 |
| Smoke Development | ASTM E84 | <450 |
| Surface Burning | ASTM E84 | Class 1 (A) |
| Ignition Barrier Uncoated | NFPA 286 | Pass |
| Spray Applied Thermal Insulation | Appendix X | |
| | ASTM C-1029 | Meets or Exceeds Type II |

Thermal Barrier

| | |
|---|--|
| DC315 as manufactured by International Fireproof Technology | Application Rate: 14 Wet Mils- 9 Dry Mils |
| No-Burn Plus ThB | 14 Wet Mils- 9 Dry Mils |
| Flame Control 60/60A | 14 Wet Mils- 9 Dry Mils |

Ignition Barrier¹

EnviroSeal CC meets the requirements of AC377 and Appendix X for use in attics and crawlspaces without the use of a prescriptive ignition barrier or intumescent coating.

Approvals and Certifications

- IAPMO UES# 942
- Meets requirements for ASTM C1029 as a Type II material



Recommended Applications

When properly installed by an approved applicator, EnviroSeal expands quickly to fill gaps, cracks, and voids providing enhanced air sealing, reduced moisture infiltration, and can add structural enhancements. EnviroSeal may be used in residential, commercial, industrial, agricultural, and institutional applications.

Vapor Retarder

EnviroSeal CC, when installed at a minimum thickness of 1", qualifies as a Class II Vapor Retarder. Always check with your local building official or the appropriate edition of the IRC or IBC for specific requirements and climate zone tables.

Physical Properties

| Property | Test | Results |
|-----------------------------|------------|------------------------------|
| R-Value | ASTM C-518 | 7.1 @ 1" |
| Density (nominal) | ASTM D1622 | 1.8 - 2.0 lb/ft ³ |
| Water Vapor Transmission | ASTM E96 | 0.86 perm @1" |
| Dimensional Stability | ASTM D2126 | < 1% |
| Tensile Strength | ASTM D1623 | 62 psi |
| Compressive Strength | ASTM D1621 | 26 psi |
| Air Permeance @ 75 Pa | ASTM E2178 | <0.002 L/s.m ² |
| Water Absorption (% Volume) | ASTM D2842 | <1% by volume |
| Air Barrier Assemblies | ASTM E2357 | Compliant |
| Closed Cell Content | ASTM D2856 | >97% |
| Maximum Service Temp. | ASTM C411 | 180°F |
| Fungi Resistance | ASTM C1338 | Pass, no growth |
| Re-Entry - Trades | ASTM D8445 | 1-Hour @10ACH |
| Re-Occupancy - Homeowners | | 24-Hours @10ACH |

Thermal Resistance

| Thickness (inch) | R-Value (°F·ft ² ·h/Btu) ⁱ |
|------------------|--|
| 1.0 | 7.1 |
| 2.0 | 14 |
| 3.0 | 21 |
| 5.5 | 38 |

1 Ignition Barrier

EnviroSeal™ CC may be used in attics and crawlspaces without a prescriptive ignition barrier or intumescent coating under the following conditions: Entry is only to service utilities in the attic or crawlspace and no storage is permitted; attic and/or crawlspaces cannot be interconnected.

Other requirements: IBC 1203.2; 1203.3; IRC R408.1; R806; IMC 701; 702

Processing Parameters

| | |
|--------------------------|---|
| Pressures (dynamic): | 1,000-1,500psi |
| Preheat Temperature: | A and B, 105-140°F |
| Hose Temperature: | 105-140°F |
| Drum Temperature in Use: | 70-80°F |
| Surface Temperature: | Standard Grade: 50-125°F Winter Grade: 10-75°F |

The mix ratio of resin to ISO is 1:1 by volume. EnviroSeal products should be processed through commercially available equipment designed for spray polyurethane foam. The recommended spray gun is the Graco Fusion AP/CS gun equipped with an AR 4242/AR 4747 chamber. The use of larger gun chambers may result in reduced yield and decreased physical properties.

Recommended Maximum Pass Thicknesses

| Ambient Temperature | Maximum Pass* |
|---------------------|---------------|
| 10°F- 85°F | 3" |
| >85°F | 3" |

*On dual passes when the ambient temperature is >85F, allow the first pass to cool to 100F before applying the second pass.

Liquid Component Characteristics

Mix Ratio by Vol: 1:1 of A:B

Component A: 150-250 cps @ 77°F (Viscosity)
1.24kg/L sg @ 77°F (Specific Gravity)

Component B: 600 cps @77°F (Viscosity)
1.18 kg/L sg @ 77°F (Specific Gravity)

Storage Recommendation

All EnviroSeal products are factory sealed and should remain sealed until they are ready to be used. Keep drums closed during storage and out of a humid environment.

Keep drums out of direct sunlight. To ensure proper longevity of the products, drums should be stored indoors within the temperature ranges referenced below. Please see chart below for shelf life and proper storage temperatures of EnviroSeal CC:

| | | |
|------------------|--|--------------------------------------|
| Shelf Life | EnviroSeal CC Part B Resin - 6 months | EnviroSeal ISO Part A - 12 months |
| Storage Temp Rec | 50-80°F | 50-80°F |

Precautions

Like many construction materials, spray polyurethane foam is a combustible product. Therefore, installers and occupants are to take precautions and safety measures to ensure the foam does not come into close (within 3") contact of any devices that have a surface temperature exceeding 180°F. Once application is completed, foam shall be protected with a thermal barrier in accordance with the local building code requirements for a suitable thermal barrier (e.g. drywall).

Adhesion

EnviroSeal CC will adhere to most construction materials. Substrates must be free of grease, oil, dirt, and surface moisture. Moisture content of porous materials must be below 19% before application of foam.

Manufacturer can be contacted for material compatibility, surface preparation techniques, and adhesion on commonly encountered construction materials. It is up to the builder or designer to determine the suitability of the material for any project. The installer must verify the compatibility of the product at the time of application due to the variability of weather conditions, material suppliers, and site conditions which may impact the overall performance of the product.

Health and Safety Handling

When spraying or handling EnviroSeal ISO and resin the following protective steps and equipment are recommended:

Protective Equipment

- Fabric coverall (non-porous)
- Nitrile gloves
- Protective eyewear
- Supplied full face fresh air respirator (while spraying)
- Use personal protective equipment (see SDS)

Exposure

- Avoid all contact with skin
- Avoid all contact with eyes
- Do not ingest
- Do not inhale vapors

In case of exposure, please refer to the SDS for first-aid measures.

Spills

In case of spills, contain and collect spillage with a non-combustible absorbent material, such as: sand, earth, clay-based oil absorbent (kitty-litter), etc.

Product Support

For further support, contact the Technical Services Department at Quadrant Performance Materials by calling 972-542-0072.

Disclaimer

The technical information provided in this document serves as a general guideline. Always refer to the Safety Data Sheet (SDS) and product label before use.

LIMITED WARRANTY INFORMATION: The information herein is to assist customers in determining whether our products are suitable for their applications. Our products are only intended for sale to commercial customers. Customer assumes full responsibility for quality control, testing, and determination of suitability of products for its intended application or use. We warrant that our products will meet our specifications contained herein. We make no other warranty of any kind, either express or implied, by fact or law, including any warranty of merchantability or fitness for a particular purpose. Our total liability and customers' exclusive remedy for all proven claims is replacement of nonconforming product and in no event shall we be liable for any other damages.



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