

Closed-Cell Wall Foam System

For Professional Use Only

DESCRIPTION

Forticell 2.0 is a two component, next generation HFO blown closed-cell spray applied polyurethane foam system. Forticell HFO technology has a low Global Warming Potential (GWP) of less than 2 with an Ozone Depletion Potential (ODP) of Zero. Forticell 2.0 is an insulation system designed to use in commercial and residential applications.

SYSTEM FEATURES

- High R- Value increases thermal performance and reduces operating energy costs
- Functions as a vapor retarder in thickness greater than 1 inch
- Formulations adjusted for Seasons for ease of spraying at different ambient temperatures

RECOMMENDED USES

Forticell 2.0 is used to insulate interior walls, subfloors, and roof cavities including residential and commercial stud walls, ceilings, sub-floor cavities, "controlled atmosphere" storage structures and metal buildings. Uncontrolled air leakage is eliminated increasing overall thermal performance of building structure and saving energy. Maximum thickness of 4 inches per pass during application.

TYPICAL PHYSICAL PROPERTIES*

-Nominal Density ASTM D1622, lbs/ft ³	2.0 Lbs	-Surface Burning Characteristics ASTM E84 – Class 1 Flame Spread Index Smoke Development Index	25 400
-Thermal Resistance ASTM C518 Aged R Value (140°F @ 90 days)	6.9 per 1 inch 21.0 @ 3 inch	-Compressive Strength ASTM D1621, psi	25
-Air Impermeable ASTM E 2178	< 2% (L/s/m ²)	-Tensile Strength ASTM D1623, psi	55-65
-Water Vapor Transmission ASTM E96-00, Method A desiccant Perm-Inch	0.9	-Sound Transmission ASTM E90-85 / E 413	35
-Dimensional Stability ASTM D2126-98, <9% 168 hr @ 70° C, 97% humidity	PASS		
-Closed Cell Content ASTM D 2856, min %	>90%		

COVERAGE

Density - 2.0 pounds per cubic foot

Yield – 4,500 to 5,500 board feet per 1,000 lbs “Kit” 1 Drum “A” and 1 Drum “B”

16601 Central Green Blvd. #100 • Houston, TX 77032

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APPLICATION

Minimum pass thickness of $\frac{3}{4}$ " is recommended and not to exceed 4" per pass. See chart below regarding substrate and air temperatures for reactivity grades prior to use. Between passes foam should be allowed to cool to ambient temperatures.

STORAGE

Both "A" and "B" components should be stored in their original containers and away from excessive heat and moisture, especially after the seals have been broken or if materials have been used. Drums must be stored indoors, and jobsite tanks maintained between 50°F and 75°F. Containers should be opened carefully to allow and pressure to be vented safely while wearing safety protection. Excessive venting of the "B" component may result in higher density foam which could also reduce yield. Materials stored below 50°F will increase viscosity and some equipment may not be able to reach adequate temperature set points. Supply pumps and hoses must be sized to provide adequate supply when the materials are cold or at a higher viscosity.

SHELF LIFE

Excessive temperature changes may decrease shelf life. When stored in original unopened containers between 50°F - 80°F, shelf life of the "B" material is six months. Temperature above 80°F can decrease the shelf life. When stored in original unopened containers between 65°F - 85°F, shelf life of the "A" material is six months.

SURFACE PREPARATION

All surfaces should be clean and dry, free of dirt, oil, solvent, loose particulates, curing compounds, frost, ice or any foreign matter which could affect adhesion. Contractor should perform a test of a small area to verify moisture content and surface conditions of the substrate prior to full application to verify adhesion.

SUBSTRATES

Exterior grade gypsum sheathing, OSB, plywood, lumber, CMU, Structural & Lightweight concrete, Properly prepared galvanized, aluminum, and painted metal. Lightweight insulating concrete or friable substrates are not acceptable.

Painted Steel, Galvanized, Stainless and Aluminum – Surfaces should be checked for mill oil used in the manufacturing process and moisture. Check with your FortiSystems representative for primer recommendations.

SUBSTRATE TEMPERATURES

Forticell 2.0 Foam has multiple reactivity profiles to meet varying substrate temperatures. Supplemental heating is required at temperatures of 40°F and below.

SUBSTRATE & AIR TEMPERATURES

Winter Grade	Regular Grade
30°F - 80°F	60°F - 120°F

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PROCESSING CHARACTERISTICS

PRE-HEATER TEMPERATURES SHOULD MAINTAIN +/- 5°F

Component A	100°F - 120°F
Component B	100°F - 130°F
Hose	100°F - 120°F

THERMAL AND IGNITION BARRIERS

Forticell closed cell wall foam insulation must be separated from the interior of the building by an approved thermal barrier and be installed in accordance with all National, State and Local building code requirements.

Non-Prescriptive Thermal Barrier

- No-Burn, Inc – Plus ThB @ 14 wet mils (115 sq. ft. gallon)

HEALTH AND SAFETY INFORMATION

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling materials used to produce foam from the Forticell 2.0 system. Before working with this product, you must read and become familiar with the available information on its risks, proper use and handling. This cannot be overemphasized. Information is available in several forms, e.g., safety data sheets and product labels.

Warning signs should be posted at entrances stating, "Warning, Breathing Hazard During Application if Insulation Materials. DO NOT ENTER without Proper Breathing Protection.

FREIGHT CLASSIFICATION

Component A – Class 55, NOIBN Non-Hazardous

Component B – Class 55, NOIBN Non-Hazardous

DISCLAIMER

To the best of our knowledge, all technical data contained herein is true and accurate as of the date of issuance and subject to change without prior notice. User must contact Everest Systems LLC to verify correctness before specifying or ordering. We guarantee our products to conform to the quality control standards established by Everest Systems Products. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of the product. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY EVEREST SYSTEM'S EXPRESSED OR IMPLIED; STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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