

TECHNICAL DATA SHEET

Material Specification Criteria | Project Submittal Data



An Accella Brand

FOAMSULATE 220

MEDIUM DENSITY · CLOSED CELL FOAM

Foamsulate 220 is a two-component, medium density, one to one by volume spray applied polyurethane foam. To produce Foamsulate 220 requires the use of an “A” component (ISO) and a blended “B” component (RESIN) which contains ZERO ozone depleting blowing agents, catalysts, polyols and fire retarding materials. Foamsulate 220 is an insulation system designed for use in residential, commercial and industrial applications. Use in lieu of more traditional forms of insulating materials such as fiberglass, cellulose or other loose fill products. Typical area’s where spray polyurethane foam is applied are:

**EXTERIOR WALLS · VENTED ATTIC’S · UN-VENTED ATTIC ASSEMBLIES · BETWEEN FLOORS · FOUNDATIONS
CRAWLSPACES · HVAC DUCTS · FLUID TANKS · COLD STORAGE UNITS**

TYPICAL PHYSICAL PROPERTIES:

PROPERTY	FOAMSULATE 220	TEST
R-VALUE	7.0 @ 1”	ASTM C 518
CORE DENSITY	2.0 LB / Cubic Foot	ASTM D 1622
CLOSED CELL CONTENT	> 96%	ASTM D 6226
SOUND TRANSMISSION COEFFICIENT	38	ASTM E 413
WATER VAPOR TRANSMISSION - PERMEANCE	1.49 Perms at 1” 0.92 Perms at 1.5” 0.77 Perms at 2”	ASTM E 96
AIR IMPERMEABLE	< 0.005 (L/s-m ²)	ASTM E 283
NOISE REDUCTION COEFFICIENT	0.10	ASTM C 423
TENSILE STRENGTH (PSI)	58	ASTM D 1623
DIMENSIONAL STABILITY	< .27%	ASTM D 2126
COMPRESSIVE STRENGTH (PSI)	41	ASTM D 1621

BUILDING CODE CERTIFICATIONS / FIRE TEST DATA

EVALUATION SERVICE REPORT	IAPMO	352
BUILDING TYPES	Approved	I, II, III, IV, V-B: Nonstructural Insulating Material
FLAME SPREAD	ASTM E84	Class I < 10
SMOKE DEVELOPMENT	ASTM E84	Class I < 195
ASTM C 1029	Spray Applied Polyurethane Thermal Insulation	Meets or Exceeds Type II
ASTM E 119	Pass	Non Load-Bearing - 1 Hour Rated - Wall Assembly
NFPA 259	Potential Heat	1883 Btu/ft ² Per Inch Of Thickness
NFPA 285	Pass	Compliant For Use In Building Types: I, II, III, IV, V
UL LISTING	FWFX.R38039	Exterior Wall System Components
UL LISTING	FWFO.EWS0013	System No. EWS0013 Exterior Wall Systems
UL GREENGUARD GOLD	GOLD: UL 2818 - 2013 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings	
NFPA 286	Pass: Can be used without a Code prescribed 15-minute thermal barrier when covered with one of the approved intumescent coatings as shown on page 2.	
NFPA 286 AC377 APPENDIX X	Pass: Complies with the applicable requirements of ICC-ES AC377 Appendix X for use in attics and crawlspaces without a prescriptive ignition barrier.	
UL 1715	Pass: Can be used without a Code prescribed 15-minute thermal barrier when included as a component in tested alternative thermal barrier assemblies. See THERMAL BARRIER on page 2.	
FLORIDA BUILDING CODE	FL 17185: FL Building Code 2010: RULE 61G20-3: Approved for use as supplemental attachment of roof OSB deck to rafters/truss top chords (dimensional lumber) for commercial and residential buildings. Product may be used for Code-plus wind resistance in new construction or enhancing the wind uplift resistance on existing structures.	

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GENERAL PROPERTIES: Foamsulate 220 is a 2.0 pcf density closed cell insulating material. Foamsulate 220 is designed for use where insulation systems require superior air barrier characteristics along with the ability to minimize moisture infiltration. Foamsulate 220 has a 7.0 per inch R-value rating while providing structural enhancement due to its semi-rigid nature when cured. When properly installed by a professional application company Foamsulate 220 quickly expands to fill the cracks, crevices, gaps and voids that exist in every structure. In addition Foamsulate 220 will conform to the curves, irregular surfaces and spaces to form a superior thermal envelope around your entire structure.

THERMAL BARRIER: Current International Building Code (IBC) and International Residential Code (IRC) require that spray polyurethane foam be separated from the building interior by a Code prescribed 15-minute thermal barrier or a Code-approved alternative. Gypsum board at a minimum thickness of 1/2" is a Code-prescribed 15-minute thermal barrier. The following products when installed per manufacturer specifications are alternative thermal barrier assemblies containing Foamsulate™ 220:

APPROVED INTUMESCENT COATINGS: NFPA 286

DC315™ manufactured by: International Fireproof Technology, Inc.	Application Rates: 18 Wet Mils – 12 Dry Mils
Flame Seal-TB™ manufactured by: Flame Seal Products, Inc.	Application Rates: 24 Wet Mils – 15 Dry Mils

CLOSED CELL FOAM: UL 1715

Staycell ONE STEP® 255 manufactured by: Preferred Solutions, Inc.	Application Rates: Walls: 1 inch Roofs/Ceilings: ½ inch
Note: Fire testing was conducted separately for installation on walls only or the underside of roofs and ceilings only. PRODUCTS ARE NOT TO BE INSTALLED IN COMBINED WALL AND ROOF/CEILING CONFIGURATIONS.	

IGNITION BARRIER: Foamsulate 220 meets the requirements of ICC-ES AC377 and Appendix X for use in attics and crawlspaces without the use of a prescriptive ignition barrier under the following conditions.

a	Entry is only to service utilities in the attic or crawlspace and no storage is permitted.
b	Attic or crawlspace areas cannot be connected.
c	Air from the attic or crawlspace cannot be circulated to other parts of the building.
d	In accordance with IBC Section 1203.3 or IRC Section R408.1, under floor (crawlspace) ventilation is provided as applicable.
e	In accordance with IBC 1203.2 or IRC Section R806, attic ventilation is provided as applicable.
f	In accordance with 2012 and 2009 IMC (International Mechanical Code®) Section 701, or 2006 IMC Sections 701 and 703, combustion air is provided.
g	The foam plastic insulation is limited to the maximum thickness and density tested.
h	The installed coverage rate of coatings, if part of the insulation system shall be equal or greater than that tested.

VAPOR RETARDER: When installed at a minimum thickness of 1.5" Foamsulate 220 is considered a vapor retarder. Consult local building code officials for specific requirements. Climate zone tables are available in current IBC and IRC publications.

APPLICATION GUIDELINES: Polyurethane foam systems should be processed through commercially available spray equipment designed for that purpose by a qualified professional applicator. Consult the current Accella Polyurethane Systems, LLC application guidelines for Foamsulate 220 prior to installation. It is the responsibility of the professional applicator to thoroughly understand all equipment technical information and safe operating procedures that pertain to a spray polyurethane foam application.

MATERIAL HANDLING: Due to the reactive nature of these components respiratory protection is mandatory. The vapors and liquid aerosols present during application and for a short period thereafter must be considered – and appropriate protective measures taken – to minimize potential risks from overexposure through inhalation, skin, or eye contact. These protective measures include: adequate ventilation, safety training for installers and other workers, use of appropriate personal protective equipment, and a medical surveillance program. It is imperative that the applicator read and become familiar with all available information on proper use and handling of spray polyurethane foam. Additional Information is available at spraypolyurethane.org, polyurethane.org or by contacting the Premium Spray Products Technical Services dept. of Accella Polyurethane Systems, LLC.

PROPER STORAGE OF RAW MATERIALS: Shelf life is twelve (12) months from date of manufacture when stored indoors, in the original unopened containers and between the temperatures of 40° to 80°.

TECHNICAL ASSISTANCE: For additional assistance please contact the Premium Spray Products Technical Services dept. of Accella Polyurethane Systems, LLC. at (770) 607-0755.

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 Accella Polyurethane Systems, LLC to verify correctness before specifying or ordering. We guarantee our products to conform to the quality control standards established by Accella Polyurethane Systems, LLC. 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 ACCELLA POLYURETHANE SYSTEMS, LLC EXPRESSED OR IMPLIED; STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



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