

TECHNICAL DATA SHEET

Material Specification Criteria | Project Submittal Data



QUADFOAM® 500 LIGHT DENSITY · OPEN CELL FOAM

QuadFoam® 500 is a two component, light density, one to one by volume spray applied polyurethane foam. To produce QuadFoam® 500 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. QuadFoam® 500 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 areas where spray polyurethane foam is applied are:

**EXTERIOR WALLS · INTERIOR WALLS · VENTED ATTICS · UN-VENTED ATTIC ASSEMBLIES
BETWEEN FLOORS · CEILINGS**

TYPICAL PHYSICAL PROPERTIES:

PROPERTY	QUADFOAM® 500	TEST
R-VALUE	3.6 @ 1”	ASTM C 518
CORE DENSITY	0.5 LB / Cubic Foot	ASTM D 1622
OPEN CELL CONTENT	> 97%	ASTM D 6226
SOUND TRANSMISSION COEFFICIENT	50	ASTM E 90
WATER VAPOR TRANSMISSION - PERMEANCE	9.8 Perms @ 3.5”	ASTM E 96
AIR IMPERMEABLE	< 0.001 (L/s-m2) @ 3.5”	ASTM E 283
NOISE REDUCTION COEFFICIENT	0.7	ASTM C 423
TENSILE STRENGTH (PSI)	5.0 psi	ASTM D 1623
DIMENSIONAL STABILITY	< 15%	ASTM D 2126

BUILDING CODE CERTIFICATIONS / FIRE TEST DATA		
EVALUATION SERVICE REPORT	ICC IAPMO	ESR 3458 UES271
EVALUATION SERVICE REPORT	ICC - FBC Supplement	Florida Building Code - Building Florida Building Code - Residential
BUILDING TYPES	Approved	I, II, III, IV, V-B: Nonstructural Insulation material
FLAME SPREAD	ASTM E84	Class I < 10
SMOKE DEVELOPMENT	ASTM E84	Class I < 250
NFPA 259	Pass: Standard fire test method for evaluation of fire propagation characteristics of exterior non-load bearing wall assemblies containing combustible components.	
NFPA 285	Pass: Standard fire test method for evaluation of fire propagation characteristics of exterior non-load bearing wall assemblies containing combustible components.	
NFPA 286	Pass: Can be used without a 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 when covered with one of the approved intumescent coatings as shown on page 2.	
UL LISTING	FWFX.R38039	Exterior Wall System Components
UL LISTING	FWFO.EWS0013	Exterior Wall Systems



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EQUIPMENT AND COMPONENT RATIOS: The mix ratio is 1 to 1 by volume. The pre-heater temperatures should be set between 115°F - 135°F and able to maintain +/- 5°F.

GENERAL PROPERTIES: QuadFoam® 500 is a low viscosity, 0.5 pcf density open cell insulating material. QuadFoam® 500 is designed to provide significant control of air infiltration along with a high R-value per inch. When properly installed by a professional application company QuadFoam® 500 quickly expands to fill the cracks, crevices, gaps and voids that exist in every structure. In addition, QuadFoam® 500 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 intumescent coatings when installed per manufacturer specifications are approved as thermal barrier alternatives for QuadFoam® 500:

APPROVED INTUMESCENT COATINGS:

DC315™ manufactured by: International Fireproof Technology, Inc DC 315 Primer: DC315	Application Rates: 4 Wet Mils - 3 Dry Mils 16 Wet Mils - 11 Dry Mils
Fireshell TB manufactured by: TPR2 Fireshell ICP Primer: Fireshell TB	Application Rates: 9 Wet Mils - 5 Dry Mils 15 Wet Mils - 9 Dry Mils

IGNITION BARRIER: QuadFoam® 500 meets the requirements of ICC- ES AC377 Appendix X for use in attics and crawlspace without a prescriptive ignition barrier when covered with one of the following approved intumescent coatings and the following conditions are met:

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.

MANUFACTURED BY:

ACCELLA™ POLYURETHANE SYSTEMS, LLC
100 Enterprise Drive – Cartersville, GA 30120
(844) 922-2355 • www.quadfoam.com

EMERGENCY NOTIFICATIONS: CHEMTREC : Material Leaks, Spills or Fire (800) 424-9300

APPROVED INTUMESCENT COATINGS:

DC315™ manufactured by: International Fireproof Technology, Inc	Application Rates: 4 Wet Mils - 3 Dry Mils
Fireshell IB manufactured by: TPR2	Application Rates: 4 Wet Mils - 3 Dry Mils

VAPOR RETARDER: Open cell foam insulation is vapor permeable and will allow some diffusion of moisture through the product. 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™ application guidelines for QuadFoam® 500 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 Accella™ Technical Services dept. of Accella™ Polyurethane Systems, LLC.

PROPER STORAGE OF RAW MATERIALS: Shelf life is Six (6) months from date of manufacture when stored indoors, in the original unopened containers and between the temperatures of 50°-80°F.

TECHNICAL ASSISTANCE: For additional assistance please contact the Accella™ Technical Services dept. of Accella™ Polyurethane Systems, LLC. at (844) 922-2355.

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™ 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™ EXPRESSED OR IMPLIED; STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

