ULTRATITE 500

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION

UltraTite 500 is a two component, open cell, spray applied, semi-rigid polyurethane foam system. This product is a fully water blown foam system with a low in-place density with excellent adhesion to various substrates and to itself. UltraTite 500 complies with the intent of the International Code Council's residential and commercial building codes for spray polyurethane foam plastic insulation. UltraTite 500 has been approved by the EcoLogo as an NAHB Green Approved product. UltraTite 500 meets the USDA guidelines for incidental food contact. **For use in Types I - V Construction under the IBC and IRC**

TYPICAL PHYSICAL PROPERTIES[1]

Test Method	Property	Result
ASTM C518	Thermal Resistance (R-Value) @ 1″	3.81 @ 1″
ASTM D1622	Core Density	.45 - .5 pcf
ASTM E96	Water Vapor Permeance	6.33 perms @ 3.5″
ASTM E283	Air Permeance @ 75 Pa	<0.02 L/sm² @ 3.5″
ASTM D1623	Tensile Strength	5.6 lbf/in²
ASTM C1338	Fungi Resistance	Passed
ASTM E84	Flame Spread	21
ASTM E84	Smoke Development	216
AC377 Appendix X	Ignition Barrier with an intumescent coating **(see table below)**	Passed
ASTM D1621	Compressive Strength	.7 lbf/in²
ASTM C423	Noise Reduction Coefficient	.75
NFPA 286	Thermal Barrier as an interior finish **(see table below)**	Passed
NFPA 285[2]	Compliant with IBC for exterior walls of Type I, II, III & IV building of any height	Passed
ASTM E 1119[2]	Non load-bearing, 1 hour, wall assembly test	Passed

1 Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

2 Contact UltraTite Solutions for assistance with alternate assemblies

ALTERNATIVE IGNITION BARRIER ASSEMBLIES: FIRE PROTECTIVE COATINGS/COVERINGS

IGNITION BARRIER			THERMAL BARRIER		
Type	Thickness	Approx. Application Rate (Coatings Only)	Type	Thickness	Approx. Application Rate (Coatings Only)
DC315	6 mils WFT 4 mils DFT	0.37 gallon per 100 ft²	DC315	18 mils WFT 12 mils DFT	1.13 gallon per 100 ft²
No-Burn Plus XD	6 mils WFT 4 mils DFT	0.37 gallon per 100 ft²	No-Burn Plus XD	18 mils WFT 12 mils DFT	1 gallon per 100 ft²

Fire-protective coatings and coverings shall be applied over all exposed SPF surfaces in accordance with the coating/covering manufacturer's instructions and this report

ULTRATITE 500: OPEN CELL

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PROCESSING PARAMETERS

Pre-heater Temperature†	"A" 120 - 140°F "B" 120 - 140°F
Hose Temperature†	120 - 140° F
Pressure†	1100 - 1500 psi (dynamic)
Mix Ratio Parts	1 by 1 volume: "A" to "B"

SHIPPING INFORMATION

55-gallon drum	"A" component - 500 lbs. "B" component - 435 lbs. "B" component - 450 lbs.
D.O.T. Classification; Liquid Plastic Material - NOIBN	Protect from freezing

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REACTIVITY

CREAM TIME	GEL TIME	TACK FREE	END OF RISE	VISCOSITY
1 - 2 seconds	3-4 seconds	6-7 seconds	6-7 seconds	225 ± 75 cps "B" component 180 - 220 cps "A" component

STORAGE & USE OF CHEMICAL

Cold chemicals can cause poor mixing, pump cavitation or other process problems due to higher viscosity at lower temperatures. The storage temperature should be between 60°F - 75°F. Do not store in direct sunlight. Keep drums tightly closed when not in use. Verify material temperature with an infrared gun or a thermometer

EQUIPMENT & COMPONENTS

UltraTite 500 is formulated for spraying with a two component pump specifically designed for spray polyurethane foam systems. The B-drum is connected to the resin pump and the A-drum is connected to the isocyanate pumps. The plural component proportioner must be capable of supplying each component within ±2% of the desired 1:1 mixing ratio by volume. The dispensing temperature should be set between120°F and 140°F to the spray gun. Drum temp should be 90°F prior to spraying.

SAFE HANDLING OF LIQUID COMPONENTS

Avoid prolonged breathing of vapors. In case of chemical contact with eyes, flush with water for at least 15 minutes and get medical attention. All contractors and applicators must use appropriate respiratory, skin and eye Personal Protective Equipment (PPE) when handling and processing spray foam (SPF) systems. Read and become familiar with available information prior to use this product. For further information refer to www.spraypolyurethanes.org: Health and Safety Product Stewardship Workbook for High-Pressure Application of SPF.

APPLICATION RECOMMENDATIONS/CAUTIONS

- UltraTite 500 is designed for insulation in most standard construction configurations using common materials such as concrete, metal and wood products. Foam plastic installed in walls or ceilings may present a fire hazard unless protected by an approved, fire-resistant thermal barrier with a finish rating of no less than 15 minutes as required by building codes. Rim joist/header areas in accordance with the IRC® and IBC® may not require additional protection. Foam plastics must also be protected against ignition by code-approved materials in attic and crawl spaces, or as code-approved alternatives apply.
- SPF insulation is combustible. Appropriate signs shall be posted warning that all "hot work" such as welding soldering, and cutting with torches should not take place until a thermal barrier or approved equivalent is installed over any exposed polyurethane foam
- UltraTite 500 is a class III Vapor Retarder and may need an additional vapor retarder in certain building envelopes. Please refer to the IRC Table 402.5.1 and any applicable local building codes.
- Applicators should apply a minimum pass thickness of 1 inches, maximum pass thickness of 6-8 inches.
- Substrate must be at least 5 degrees above dew point, with best processing results when ambient humidity is below 80%
- Substrate must also be free of moisture (dew or frost), grease, oil, solvents and other materials that would adversely affect adhesion of the polyurethane foam. Substrate temp should be between 20°F and 120°F
- UltraTite 500 continuous service temperature is between -60°F and 180°F
- UltraTite 500 must not be used when the continuous service temperature above 180°F (82°C) and should not be used in contact with bulk water, below grade or to cover flexible ductwork.