UltraTite 500

Description

UlytraTite 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. UlraTite 500 has been approved by the EcoLogo is an NAHB Green Approved Product. UltraTite 500 meets the USDA guidelines for incidental food contact. For use in Types I - V construction under the IBS and construction under the IRC.

Typical Physical Properties [1]

Test Method	Property	Result
ASTM C518	Thermal Resistance (R-Value) @ 1"	3.81 at 1 inch
ASTM D1622	Core Density	0.45 - .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	Pass
ASTM E84	Flame Spread	21
ASTM E84	Smoke Development	216
AC377 Appendix X	Ignition Barrier with an intumescent coating see table below	Pass
ASTM D1621	Compressive Strength	.7 lbf/in2
ASTM C423	Noise Reduction Coefficent	.75
NFPA 286	Thermal Barrier as a interior finish see table below	Pass
NFPA 285	Compliant with IBC for exterior walls of Type I, II, III and IV buildings of any height. Contact GreenShield Products for assistance with alternate assemblies	Pass
ASTM E 119	Non load-bearing, 1 hour, wall assembly test. Contact the Green-Shield Products for assistance with alternate assemblies	Pass
	Viscosity at 70°F	225 ± 75 cps "B: Component 180-220 cps "A" Component

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.

ALTERNATIVE IGNITION BARRIER ASSEMBLIES

FIRE-PROTECTIVE COATING/COVERING Ignition Barrier				FIRE-PROTECTIVE COATING/COVERING Thermal Barrier		
TYPE	THICKNESS	THEORETICAL APPLICATION RATE (COATINGS ONLY)		TYPE	THICKNESS	THEORETICAL APPLICATION RATE (COATINGS ONLY)
DC315[2]	6 mils WFT 4 mils DFT	0.37 gal/100 ft[2]		DC315[2]	18 mils WFT 12 mils DFT	1.13 gal/100 ft[2]
No-Burn Plus XD	6 mils WFT 4 mils DFT	0.37 gal/100 ft[2]		No-Burn Plus ThB[3]	18 mils WFT 12 mils DFT	1 gal/100 ft[2]

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.

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Processing Parameters

Pre-Heater Temperature	"A" 125 - 140°F** "B" 125 - 140°F**
Hose Temperature:	125 - 140°F**
Pressure	1200-1400 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

**It may be necessary to go outside of the recommended processing parameters or split temps due to ambient temps and material viscosity, temperature, humidity, elevation, substrate or other factors, applicator should closely observe and adjust accordantly.

Reactivity

Cream Time	Gel Time	Tack Free	End of Rise
1-2 Seconds	3 - 4 Seconds	6 - 7 Seconds	6 - 7 Seconds

Storage and 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 a infrared gun or a thermometer.

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.

Equipment and 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 between125°F and 140°F to the spray gun. Drum temp should no greater than 90°F

Application Recommendations and 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 and 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 and 120°F
- UltraTite 500 continuious service temperature is between -60°Fand 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.