

CONSTRUCTION SPECIFICATION
***SEALECTION Agribalance*[®]**
Spray-in-Place Semi Rigid Urethane Foam Insulation

Note: This specification should be adopted for each project. All notes are for guidelines only.

PART 1 GENERAL

1.1 Work Included

1. Spray application *SEALECTION Agribalance*[®] to provide insulation and air-seal.

Note: Areas to be insulated and air-seal can be generally described here if desired and then covered in greater detail in Part 3. Execution and/or showed on the drawings.

1.2 Related Sections

Note: Amend to suit project

1. Cast in place concrete	Section 03300
2. Structural Pre-cast Concrete	Section 03400
3. Unit Masonry	Section 04200
4. Metal Decking	Section 05300
5. Cold Formed Metal Framing	Section 05400
6. Rough Carpentry	Section 06100
7. Waterproofing	Section 07100
8. Vapour-Barrier	Section 07260
9. Preformed Roofing and Cladding/Siding	Section 07400
10. Fireproofing	Section 07800
11. Thermal Barrier	Section 07840
12. Flexible flashing	Section 07650
13. Metal Support Systems	Section 09110
14. Gypsum board	Section 09250

1.3 References

1. International Code Council – International Residential Code
 Section 103.7 Alternate Materials and Methods
 Section R314 Foam Plastic Insulation
 Section 806.4 Conditioned Attic Assemblies
2. International Code Council – International Building Code
 Section 2603.0 Foam Plastic
3. ASTM E84 Surface Burning Characteristics

1.4 Submittals and Samples

1. Before commencing work, submit in accordance with local code.
2. Submit independent laboratory test reports, data sheets, physical properties, and samples as required by local code officials.
3. Submit the technical data sheet from the manufacturer showing the test results from the ASTM E84 (Surface Burning Characteristics).

1.5 Quality Assurances

1. Contractor performing work under this section must be trained by DEMILEC (USA) LLC in the art of applying SEALECTION Agribalance® and maintain the InSEAL-Right Certification.

1.6 Delivery, Storage and Handling

1. Materials shall be delivered in manufacturers original sealed containers clearly labelled with manufacturer's name, product identification, safety information, net weight of contents and expiration date.
2. Material is to be stored in a safe manner and where the temperatures are in the limits specified by the material manufacturer.
3. Empty containers have to be removed from site on a daily basis.

1.7 Protection

1. Ventilate area to receive insulation to maintain safe working conditions.
2. Protect workers as recommended by standards and manufacturer's recommendations.
3. Protect adjacent surfaces, windows, equipment and site areas from damage of overspray.

PART 2 PRODUCTS

2.1 Materials

1. Spray Applied Semi Rigid Polyurethane Foam Insulation System
2. Product: SEALECTION Agribalance® Manufactured by DEMILEC (USA) LLC, Arlington, TX

2.1.1 Physical Properties

Method	Description	Value
ASTM D 1622	Density	0.60 - 0.80 lbs/ft ³
ASTM C 518	Thermal Resistance (R-value per inch)	4.45 ft. ² h.°F/BTU
ASTM E 283	Air Permeance @ 75 Pa (25 mph wind) for 3.2", 5.5", 7.5" and 10.5" thick sample	< 0.02 L/s·m ²
	Air Permeance for 3.5" thick sample	
	@ 500 Pa	0.003 L/s·m ²
	@ 1000 Pa	0.006 L/s·m ²
	@ 1500 Pa	0.011 L/s·m ²
	@ 2000 Pa	0.018 L/s·m ²
ASTM D 1621	Compressive Strength	1.86 psi
ASTM D 1623	Tensile Strength	3.87 psi
ASTM E 96	Vapor Water Permeance, 5"	4.95 Perms
ASTM E 84	Surface Burning Characteristics (6")	Class I
	• Flame Spread Index	15 – 20
	• Smoke Development	400
SWRI 05-01	Southwest Research Institute Crawl Space Test on assemblies with foam thickness. 10" underside roof deck (no ignition barrier) 5 ½" on vertical surface (no ignition barrier)	Pass

2.2 Equipment

Equipment used to apply the foam insulation shall have fixed ratio positive displacement pumps and approved by foam manufacturer.

PART 3 EXECUTION

Note: check the adhesion compatibility with: flashing, membranes and coatings.

3.1 Examination

1. Verify that surfaces and conditions are suitable to accept work as outlined in this section.
2. Report in writing, any defects in surfaces or conditions which may adversely affect the performance of products installed under this section to the consultant prior to commencement of work.
3. Commencement of work outlined in this section shall be deemed as acceptance of existing work and conditions.

3.2 Application

1. Spray-application of polyurethane foam shall be performed in accordance with manufacturer recommendations.
2. Apply only when surfaces and environmental conditions are within limits prescribed by the material manufacturer. Refer to technical data sheets.

- 3. Apply in consecutive passes as recommended by manufacturer to thickness as indicated on drawings.

Residential Construction

Location	Recommended Thickness	R-value of Insulation
Exterior walls	3.5-5.5 inches	14 - 22 ft ² .h. ⁰ F/BTU
Pony and Hip walls	3.5-5.5 inches	14 - 22 ft ² .h. ⁰ F/BTU
Attic Assembly	3.5-10 inches	14 - 40 ft ² .h. ⁰ F/BTU

Note: Recommended thickness is dependent on the type of wall construction 2"x4" vs. 2"x 6"

3.3 Protection

Except as provided in Section 314.5.3 and Section 314.5.4 of the International Residential Code, all plastic insulation shall be separated from the interior of the building by an approved thermal barrier of ½ -inch gypsum wallboard or equivalent thermal barrier material.

Note: *Work related to thermal barrier installation should be specified under appropriate sections.*

-----END OF SECTION-----