

CertainTeed

Specification Sheet

CertaSpray™ Closed Cell Foam

For Use in the BIBS-HP System

1. PRODUCT NAME

CertainTeed CertaSpray™ Closed Cell Foam.

2. MANUFACTURER

CertainTeed Corporation
 P.O. Box 860
 Valley Forge, PA 19482-0105
 Phone: (610) 341-7000
 (800) 233-8990
 Fax: (610) 341-7571
 Fax-On-Demand: (800) 947-0057
 Website: www.certainteed.com

3. PRODUCT DESCRIPTION

Basic Use: CertaSpray Closed Cell Foam is a two-component closed cell spray foam with a zero-ozone-depleting HFC blowing agent. When CertaSpray A-side closed cell is mixed with CertaSpray B-side closed cell under pressure in a 1:1 volumetric ratio, they react and expand into a medium-density closed cell foam with an in-place core density of 1.9–2.4 pcf.

Benefits: CertaSpray Closed Cell Foam provides thermal insulation for the interior of the home and reduces air infiltration through the building envelope.

Applications: The closed cell 2-pcf foam can be spray-applied into open wall cavities, perimeter joists, cathedral ceilings, garage ceilings, attics, and crawlspaces. Product can be installed up to 12" thick in ceilings and 8" thick in walls when covered with a code approved 15-minute thermal barrier. Product is meant for interior applications. Product must be finished according to local code, and must be applied by a qualified applicator.

Composition and Materials:

CertaSpray Closed Cell Foam is a medium-density, MDI-based polyurethane thermoset rigid foam.

Limitations: Foam Plastic Insulation:

CertaSpray Closed Cell Foam is defined by the building codes as a foam plastic insulation.

Thermal Barrier: Many building codes require that foam plastic insulation be covered with an approved 15-minute thermal barrier. Consult local building code officials to ensure the application meets local building codes and regulations.

Vapor Retarder: CertaSpray Closed Cell Foam must be installed at a thickness of at least 1.75" to be considered as a vapor retarder. Check local building code for climate-specific vapor retarder requirements.

Lighting Fixtures: The National Electrical Code prohibits installation of any insulation over or within 3" (76 mm) of recessed light fixtures, unless approved insulated ceiling (IC) lighting fixtures are used.

Maximum Use Temperature: CertaSpray foam should not be in contact with equipment or materials that have operating temperatures greater than 180° F.

4. TECHNICAL DATA

Chemical Properties

	CertaSpray-A	CertaSpray-B
Viscosity at 25°C, cps	150-250	1400
Specific Gravity at 25°C, g/ml	1.23	1.14

Physical and Mechanical Properties*

PROPERTY	ASTM METHOD	VALUE
Core Density, pcf	D1622	1.9-2.4
Thermal Resistance (aged) at 75° F, (h-ft ² -°F)/Btu	C518	5.8 ≤ 2" 6.4 > 2"
Thermal Resistance (initial) at 75° F, (h-ft ² -°F)/Btu	C518	6.7
Closed Cell Content, %	D2842	88-95%
Compressive Strength, psi	D1621	> 25
Tensile Strength, psi	D1623	23
Water Absorption, % by volume	D2842	< 2%
Dimensional Stability, 75° F/95% RH, 28 Days, vol%	D2126	< 9%
Water Vapor Transmission (Permeability), perm-inch	E96	1.51
Permeance (perms)	E96	1.51@1" 3.02@1/2"
Air Permeability, at 1" thickness, L/s/m ²	E283	0.013
Fungi Resistance	C1338	Pass, with no growth

*The typical properties were obtained on samples produced with a Gusmer/Giaco H25 spray machine using an air-purged Fusion spray gun. The foam was sprayed at a thickness of approximately 4", in two passes of 2" each. Please see Recommended Processing Conditions for additional information.

Fire Performance**

	TEST METHODS	RESULT
Flame Spread Index, 6 ^{***}	ASTM E84	< 25
Smoke Index, 6 ^{***}	ASTM E84	< 450
≥12" in ceilings	NFPA 286	Pass when covered with a 15-minute thermal barrier
≥8" in walls	NFPA 286	

**The results of the test method may not be indicative of real-life fire performance. All plastic insulation must be separated from the interior building by an approved thermal barrier of 1/2" gypsum wallboard or equivalent thermal barrier material as required by the building code.

Recommended Processing Conditions

	VALUE
Preheater Temperature, °F	120 - 135
Hose Temperature, °F	≤ 135
Pressure, psi	1100 - 1500
A/B Volumetric Ratio	1/1
Cream Time*, sec	1-2
Tack-free Time*, sec	4-7
Maximum thickness per pass, inches	2
Maximum installed thickness, inches	See Applicant Section

5. INSTALLATION

All application surfaces must be free of oil, grease, dust and debris. Surface must be dried prior to application of spray foam. Excess humidity may cause poor adhesion, and result in product failure. To avoid overspray, product should not be applied when conditions are windy.

Substrate temperature must reach 40°F prior to application.

The final product yield is dependent on spray conditions and spray techniques.

Typical End Use Properties: The thermal performance values depicted in the chart below are achieved at the thickness specified when installed as recommended.

6. HANDLING AND STORAGE

Storage: It is recommended that the CertaSpray-B and CertaSpray-A drums should be stored between 55-80°F. Keep containers tightly closed and store in a dry, well-ventilated area protected from freezing, rain, direct sunlight and excess heat. The storage life of chemicals is up to 6 months when stored according to the recommended conditions.

Handling: When opening the drums, loosen the cap slowly to release pressure in the drum. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing aerosols, vapor or mist. Wash skin thoroughly after handling.

The MSDS for CertaSpray-A and CertaSpray-B closed cell must be read before using this product.

7. HEALTH AND SAFETY

The health and safety information in this data sheet does not contain sufficient detail for safe handling in all cases. For detailed safety and health information refer to the Material Safety Data Sheet for this product.

8. AVAILABILITY AND COST

Distributed and sold throughout the United States. For availability and cost contact your local Territory Manager, contractor or distributor, or call CertainTeed Sales Support Group in Valley Forge, PA at (800) 233-8990.

9. WARRANTY

This product is covered by a limited one-year warranty against manufacturer's defects.

10. MAINTENANCE

No maintenance required.

11. TECHNICAL SERVICES

Technical assistance can be obtained either from the local CertainTeed sales representative, or by calling CertainTeed Sales Support Group in Valley Forge, PA at (800) 233-8990.

12. FILING SYSTEMS

CertainTeed Pub. No. 30-50-011. Additional product information is available upon request.

2x4 Wood Stud Wall											
Climate Zone	Insulation Layer Thickness					Insulation Layer Thickness					Vapor Retarder Requirement
	CertaSpray CC SPF (inch)	CertaSpray R-Value*	OPTIMA (inch)	OPTIMA R-Value**	Hybrid Insulation Cavity R-value	CertaSpray CC SPF (inch)	CertaSpray R-Value*	OPTIMA (inch)	OPTIMA R-Value**	Hybrid Insulation Cavity R-value	
1a	1	5.8	2 1/2	10.5	16	1/2	2.9	3	12.6	15.5	Unfaced
2a	1	5.8	2 1/2	10.5	16	1/2	2.9	3	12.6	15.5	Unfaced
2b	1	5.8	2 1/2	10.5	16	1/2	2.9	3	12.6	15.5	Unfaced
3a	1	5.8	2 1/2	10.5	16	1/2	2.9	3	12.6	15.5	Unfaced
3b	1	5.8	2 1/2	10.5	16	1/2	2.9	3	12.6	15.5	Unfaced
3c	1	5.8	2 1/2	10.5	16	1/2	2.9	3	12.6	15.5	Unfaced
4a	1	5.8	2 1/2	10.5	16	1/2	2.9	3	12.6	15.5	MemBrain
4b	1	5.8	2 1/2	10.5	16	1/2	2.9	3	12.6	15.5	MemBrain
4c	1	5.8	2 1/2	10.5	16	1/2	2.9	3	12.6	15.5	MemBrain
5a	1	5.8	2 1/2	10.5	16	1/2	2.9	3	12.6	15.5	MemBrain
5b	1	5.8	2 1/2	10.5	16	1/2	2.9	3	12.6	15.5	MemBrain
6a	1	5.8	2 1/2	10.5	16	1/2	2.9	3	12.6	15.5	MemBrain
6b	1	5.8	2 1/2	10.5	16	1/2	2.9	3	12.6	15.5	MemBrain
7a	1	5.8	2 1/2	10.5	16	1/2	2.9	3	12.6	15.5	MemBrain
7b	1	5.8	2 1/2	10.5	16	1/2	2.9	3	12.6	15.5	MemBrain
8	Requires custom hygrothermal analysis.										NA

2x6 Wood Stud Wall											
Climate Zone	Insulation Layer Thickness					Insulation Layer Thickness					Vapor Retarder Requirement
	CertaSpray CC SPF (inch)	CertaSpray R-Value*	High Density Fiber Glass (inch)	OPTIMA R-Value**	Hybrid Insulation Cavity R-value	CertaSpray CC SPF (inch)	CertaSpray R-Value*	High Density Fiber Glass (inch)	OPTIMA R-Value**	Hybrid Insulation Cavity R-value	
1a	1	5.8	4 1/2	19	25	1/2	2.9	5	21.0	23.9	Unfaced
2a	1	5.8	4 1/2	19	25	1/2	2.9	5	21.0	23.9	Unfaced
2b	1	5.8	4 1/2	19	25	1/2	2.9	5	21.0	23.9	Unfaced
3a	1	5.8	4 1/2	19	25	1/2	2.9	5	21.0	23.9	Unfaced
3b	1	5.8	4 1/2	19	25	1/2	2.9	5	21.0	23.9	Unfaced
3c	1	5.8	4 1/2	19	25	1/2	2.9	5	21.0	23.9	Unfaced
4a	1	5.8	4 1/2	19	25	1/2	2.9	5	21.0	23.9	MemBrain
4b	1	5.8	4 1/2	19	25	1/2	2.9	5	21.0	23.9	MemBrain
4c	1	5.8	4 1/2	19	25	1/2	2.9	5	21.0	23.9	MemBrain
5a	1	5.8	4 1/2	19	25	1/2	2.9	5	21.0	23.9	MemBrain
5b	1	5.8	4 1/2	19	25	1/2	2.9	5	21.0	23.9	MemBrain
6a	1	5.8	4 1/2	19	25	1/2	2.9	5	21.0	23.9	MemBrain
6b	1	5.8	4 1/2	19	25	1/2	2.9	5	21.0	23.9	MemBrain
7a	1	5.8	4 1/2	19	25	1/2	2.9	5	21.0	23.9	MemBrain
7b	1	5.8	4 1/2	19	25	1/2	2.9	5	21.0	23.9	MemBrain
8	Requires custom hygrothermal analysis.										N/A

* Tested in accordance with ASTM C518 and/or C177 at 75F (24C) mean Temperature

* Aged 90 days at 140F

** R-values are determined in accordance with ASTM C 687. Complies with ASTM C 764 as Type 1 insulation.

"R" means resistance to heat flow. The higher the R-value, the greater the insulating power. To get the marked R-value, it is essential that the insulation is installed properly following the recommendations of CertainTeed Corporation.



EMERGENCY CALLS:

CertainTeed Emergency Response
Center—800-424-9300
CHEMTREC—Spills, Leak, Fire
800-424-9300
(in USA and Canada)

ASK ABOUT OUR OTHER CERTAINTEED PRODUCTS AND SYSTEMS:

EXTERIOR: ROOFING • SIDING • WINDOWS • FENCE • RAILING • TRIM • DECKING • FOUNDATIONS • PIPE
INTERIOR: INSULATION • GYPSUM • CEILINGS

CertainTeed Corporation
P.O. Box 860
Valley Forge, PA 19482

Professional: 800-233-8990
Consumer: 800-782-8777
www.certainteed.com

