

PRODUCT DESCRIPTION

THERMA-SHIELD™ 2002 is an innovative two component, medium density, one to one by volume high yielding spray foam, Class 1 rated wall insulation system designed for commercial, residential & industrial applications. THERMA-SHIELD™ 2002 is intentionally formulated without harmful HFCs, leading to an exceptionally low Global Warming Potential (GWP.)

PRODUCT DATA

These properties were obtained under controlled lab conditions at 77°F. Actual field conditions may result in variations.

	TEST METHOD	VALUES
Core Density lb/ft ³	ASTM D1622	2 pcf
Compressive Strength	ASTM D1621	>15
Water Vapor Permeance	ASTM E96	1.72 perms @ 1"
Air Permeance at 1" (L/s.m ²)	ASTM E2178	<0.02
Tensile Strength	ASTM D1623	>15
Dimensional Stability	ASTM D2126	<15
Flame Spread	ASTM E84	25
Smoke Development	ASTM E84	450
Closed - Cell, content (%)		>90

THERMAL BARRIERS

For details on approved heat and fire protection barriers, please refer to Intertek's Code Compliance Research Report #0510 (CCR #0510)

INSULATION EFFICIENCY (R-VALUE) (°F.FT2.H/BTU)

R-Value at 1"	7
R-Value/inch at 3.5"	7

LIQUID PROPERTIES AT 77°F

	A-SIDE (ISO)	B-SIDE (RESIN)
Specific Gravity	1.23	1.21
Viscosity	250 +/- 50	550 +/- 100

SUGGESTED STORAGE AND PRODUCT SHELF LIFE

- Store product at 50-80°F.
- 6 month shelf life from date of manufacture (unopened containers)
- Do not break product seal while stored
- Keep drums in a cool dry location out of direct sunlight.

GENERAL PRODUCT INFO

Product Color	White to off-white
Product Packaging	55 Gallon Drum
Reentry Times	2-hour reentry for new residential construction with natural ventilation. 24-hour reentry for commercial or retrofit projects.

CREDENTIALS

THERMA-SHIELD™ 2002 has been tested by a third party laboratory (Intertek Testings Services NA, Inc.)

CCR-0510

SUBSTRATE PREPARATION

Ensuring the proper substrate is the responsibility of the owner, the owner’s designated representative, the contractor, and/or the inspector. Additional preparation techniques may be required for uneven or specialized application environments. Contact IPS Technical Support at 812.776.6251 for further assistance. It is recommended to remove dust, dirt, paint, and other loose particles from all surfaces prior to applying IPS products. Please refer to IPS specifications or SPFA guidelines for further details on substrate preparation.

Wood	<ul style="list-style-type: none"> - Ensure the wood is adequately dry and protect surfaces from contamination. - For moisture levels exceeding 19%, please contact IPS Technical Support. - Presence of water or oil may result in poor adhesion or excessive foaming. - Fill large gaps with suitable backer rods or appropriate fillers. - For further assistance, reach out to IPS Technical Support.
Steel & Other Materials	<ul style="list-style-type: none"> - It is the contractor’s or end user’s responsibility to verify proper adhesion and suitability through field testing. Blasting and/or priming may not always be necessary. For further information, please contact IPS Technical Support.
Concrete	<ul style="list-style-type: none"> - When applying foam to concrete, ensure the surface is structurally sound, clean, and has been cured for 28 days. - Fill large gaps with suitable backer rods or fillers. - Blasting and/or priming may not be necessary. It is the contractor’s or end user’s responsibility to verify proper adhesion and suitability. For further assistance, contact IPS Technical Support.
Previously Applied Foam	<ul style="list-style-type: none"> - Whenever possible, remove any previously applied foam or other polymer products. Application over existing materials should only proceed after the contractor verifies adhesion and compatibility, and it is approved by the building owner or their representative.
Wiring and Plumbing	<ul style="list-style-type: none"> - THERMASHIELD™ 2002 is fully compatible with CPVC piping systems (Paschal Engineering Study for the SPFA). - THERMA-SHIELD™ 2002 is compatible with typical electrical wiring coverings. (NEMA Bulletin 95).

PROCESSING PARAMETERS

Preconditioning	1. It is advised to precondition the material to 60-80°F before application. At lower temperatures, the material may thicken, potentially causing pump cavitation.
Mixing	2. For THERMA-SHIELD™ 2002, mixing is not required.
Pressure Settings	<p>3. The product should be applied using a high-pressure, plural-component proportioner capable of at least 1000 psi dynamic pressure.</p> <p>4. Static pressure is generally set between 1,300 and 1,400 psi.</p>
Temperature Settings	7. Primary and hose heaters are typically set between 100°F and 150°F. Higher temperatures are used in winter months, while lower temperatures are preferred in summer months.

Setting the correct application temperature is the responsibility of the end user. Equipment temperature can vary based on factors such as equipment type, hose length, elevation, ambient temperature, substrate temperature, humidity, and more. For further assistance, contact IPS Technical Support. 812.776.6251.

APPLICATION

1. Clean surfaces as described in the “Preparation of Substrates” section.
2. If priming, follow manufacturer recommendations and ensure the primer is fully cured before application.
3. Maintain substrate temperatures between 40°F - 90°F. Flashing is recommended at lower temperatures. For higher or lower application temperatures, contact IPS Technical Support for guidance.
4. Flush an appropriate amount of material through the lines and gun before spraying the desired surface, especially when switching systems. The amount required will depend on the previous system used. For additional details, contact IPS Technical Support.
5. Ensure the ambient temperature is at least 5°F above the dew point.
6. THERMA-SHIELD™ 2002 should not exceed a 4” per lift.
7. Test the material before application to confirm it sprays, cures, and hardens properly.
8. Regularly inspect the applied material during application. If issues are identified, stop the application immediately and check all substrates, equipment, the gun, and the liquid material to determine the cause.

MAINTENANCE

1. Proper maintenance of spray equipment is essential for optimal performance. Neglecting maintenance can lead to poor product results. Refer to your equipment manufacturer’s maintenance guidelines for detailed instructions.
2. For recommendations on long-term equipment storage, contact IPS.

