



THERMA - LOK® | 500EZ

PRODUCT DESCRIPTION

THERMA-LOK® 500EZ is a two-component, one-to-one by volume spray-applied polyurethane foam insulation engineered as a high-yield, low-density open-cell system. Designed for ease of use across a wide temperature range, it features a hassle-free, no-mix application suitable for varied climate conditions.

This environmentally conscious insulation contains no ozone-depleting blowing agents and uses 100% water as its blowing agent. It provides superior thermal performance and air-barrier properties, delivering consistent results, reducing downtime, and enhancing on-site efficiency.

PRODUCT PERFORMANCE DATA

PROPERTY	TEST METHOD	VALUE
Core Density	ASTM D1622	0.5 lb/ft³
Water Permeance @ 2"	ASTM E96	9.35 perms
Air Permeance @ 3.5"	ASTM E283	0.0013 cfm/ft²
Tensile Strength	ASTM D1623	3 psi
Dimensional Stability	ASTM D2126	-4% volume change after 7 days @ 158°F & 97% RH
Flame Spread	ASTM E84	15
Smoke Development	ASTM E84	450
Open-Cell Content	ASTM D6226	97%
Water Absorption (% Volume)	ASTM D2842	33%
Fungi Resistance	ASTM C1338	No Growth
Surface Burning Characteristics	ASTM E84	Class 1 (A) @ 4"
Unvented Attic No Ignition Barrier	UVA	Walls (18") Ceiling (18")
Ignition Barrier 4 mils WFT DC 315	AC377 / Appendix X	Walls (8") Ceiling (12")

PROCESSING PARAMETERS

PARAMETER	RECOMMENDED RANGE
Dynamic Fluid Pressure	1,000 - 1,500 psi
Mixing Ratio	1:1 (A:B by volume)
Hose Heat	125 - 135°F
Preheat Temperature	"A" & "B" Components: 125 - 135°F
Recommended Mixing Chamber	AR 4242 to AR 5252 (Graco Fusion AP/CS)
Storage Temperature	64 - 86°F
Ambient Range	14 - 120°F
Ambient Temp During Spray	Substrate >5°F above dew point; ambient humidity below 80%
Moisture Content (Substrate)	<19%
Max Lift per Pass	12"

GENERAL PRODUCT INFO

ITEM	DESCRIPTION
Product Color	Cream (natural)
Packaging	55-gallon drum
Re-entry Time (worker)	1 hour (ASTM D8445)
Re-occupancy	2 hours

THERMAL RESISTANCE

THICKNESS (INCH)	R-VALUE
1.0	4.1
2.0	7.3
3.0	11
3.5	13
4.0	15
5.0	18

Tested per ASTM C518. Thermal resistance calculated using R = 3.67 per inch (excluding the 1" value).

PROCESSING GUIDELINES

PRECONDITIONING:

Condition drums to 68 - 86°F prior to use. Cold material may thicken and cause cavitation.

MIXING:

THERMA-LOK® 500EZ is designed for no-mix application. Mixing before use still helps ensure consistent performance, because storage and environmental conditions can cause slight component separation. Material may be circulated through the processing equipment to raise drum temperature. Do not overheat the material.

PRESSURE SETTINGS:

Use a plural-component proportioner rated for at least 1000 psi dynamic pressure. Maintain static pressure between 1000 - 1500 psi. Use an AR 4242 to AR 5252 mixing chamber (Graco Fusion AP/CS); larger chambers may reduce yield and physical properties.

TEMPERATURE SETTINGS:

Hose & preheater: 125 - 135°F (both A & B). Adjust based on substrate, ambient temperature, and humidity. Warmer temps for winter, cooler for summer.

RECOMMENDED APPLICATIONS

RESIDENTIAL INTERIOR APPLICATIONS:

Wall cavities, ceilings, interior foundation walls, attics, crawl spaces, cathedral ceilings, ductwork, and rim joists.

INDUSTRIAL APPLICATIONS:

Wall enclosures, including steel, above or below grade; foundation walls; and the underside of decks.

COMMERCIAL INTERIOR APPLICATIONS:

Walls, foundation walls, and the underside of roof decks.

APPLICATION STEPS

Applied at a maximum of 12" per pass.

Substrate temperature range: 14 - 120°F

Protect foam from UV exposure within 90 days of application.

1. Clean surfaces per "Substrate Preparation."
2. If required, apply primer and allow it to cure fully.
3. Flush the proportioner before switching materials.
4. Spray in smooth, even passes; test the pattern before spraying.
5. Allow each lift to cool before applying the next.
6. Regularly inspect foam appearance and adhesion.

LIQUID PROPERTIES @77°F

PROPERTY	A-SIDE (ISO)	B-SIDE (RESIN)
Specific Gravity	1.24	1.15
Viscosity	150 - 250 cps	150 - 250 cps

SUBSTRATE PREPARATION

WOOD

Ensure the substrate is dry and clean.
Moisture content must be below 19% before spraying.
Remove dust, oil, or debris.
Fill gaps with suitable backer rods or fillers.

STEEL & OTHER METALS

Verify adhesion and suitability through field testing.
Blasting or priming may be required depending on substrate condition.

CONCRETE

Must be clean, cured (28 days or more), and free of dust or oil.
Fill voids or cracks before application.

PREVIOUSLY APPLIED FOAM

Remove any old or incompatible foam or coatings.
Always test adhesion before full application.

WIRING & PLUMBING

Fully compatible with CPVC piping (Paschal Engineering Study for SPFA).
Safe with standard electrical wiring (NEMA Bulletin 95).

STORAGE & SHELF LIFE

Store between 64 and 86°F.
Shelf life from date of manufacture (unopened containers): Resin 6 months; IPS A-Side (ISO) 12 months.
Do not break the product seal during storage.
Keep containers sealed, dry, out of humid environments, and out of direct sunlight.
For long-term storage of IPS A-Side (ISO), use a nitrogen blanket; use a desiccant air dryer on the ISO drum in use so pressure can equalize.

HEALTH & SAFETY HANDLING

When spraying or handling THERMA-LOK® 500EZ Resin and IPS A-Side (ISO), the following protective measures and equipment are recommended:

Protective Equipment

- Wear a non-porous fabric coverall
- Use nitrile gloves
- Use protective eyewear
- Wear a supplied full-face fresh air respirator while spraying
- Always use appropriate personal protective equipment (see SDS)

Exposure Precautions

- Avoid all contact with skin and eyes
- Do not ingest
- Do not inhale vapors
- In the event of exposure, refer to the Safety Data Sheet (SDS) for first-aid procedures

Spill Response

In the event of a spill, contain and collect the material using a non-combustible absorbent such as sand, earth, or clay-based oil absorbent (e.g., kitty litter).

Disclaimer

The technical information provided herein is intended as general guidance only. Always consult the product label and Safety Data Sheet (SDS) before using this product.

HANDLING & SAFETY

- Use local exhaust ventilation during spraying.
- Always wear chemical safety goggles, chemical-resistant gloves, protective clothing, and a full-face supplied-air respirator wherever material is sprayed.
- Avoid contact with eyes and skin; avoid inhaling mist or vapor.
- Dispose of materials per local regulations.
- For full details, consult the Safety Data Sheet (SDS).
- In emergencies, call CHEMTREC: 1-800-424-9300

THERMAL BARRIERS

After installation, foam must be covered with an approved thermal barrier in accordance with local building code requirements. Tested ignition barrier and unvented attic assemblies are listed under Product Performance Data. For details on approved heat and fire protection barriers, contact IPS Technical Services.

ADHESION

Substrates must be clean, dry, and free of grease, oil, dirt, and surface moisture. The moisture content of porous materials must be below 19% prior to foam application. Contact IPS Technical Services for guidance on material compatibility, surface preparation techniques, and adhesion to common construction substrates.

It is the responsibility of the builder or designer to determine the suitability of this material for each specific project. The installer must verify product compatibility at the time of application, as variations in weather, materials, and site conditions can affect product performance.

PRECAUTIONS

Like many building materials, spray polyurethane foam is combustible. Installers and occupants must take proper safety precautions to ensure the foam does not come into contact (within 3 inches) with any device or surface that reaches temperatures above 180°F. After installation, the foam must be covered with an approved thermal barrier (for example, drywall) in accordance with local building code requirements.

MAINTENANCE

Regular equipment cleaning ensures consistent performance. Follow the equipment manufacturer's guidelines for long-term maintenance and storage. Report any product or equipment issues to IPS Technical Support.

TECHNICAL SUPPORT

For application questions, troubleshooting, or training:
IPS Technical Support: 812.776.6727
Website: SPRAYIPS.COM

