



# THERMA-LOK® | 504EZ

## PRODUCT DESCRIPTION

**THERMA-LOK® 504EZ** 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 pcf
Water Permeance	ASTM E96	59 perms
Air Permeance	ASTM E238	0.037 cfm/ft <sup>2</sup>
Tensile Strength	ASTM D1623	5.9 psi
Dimensional Stability	ASTM D2126-20	70 ± 2°C, 9 ± 3% RH
Flame Spread	ASTM E84	<25
Open-Cell Content	ASTM D6226	>90%
Fungi Resistance	ASTM C1338	No growth
R-Value @1"	ASTM C-518	3.7

## PROCESSING GUIDELINES

### PRECONDITIONING:

Condition drums to **70–80°F** prior to use. Cold material may thicken and cause cavitation.

### MIXING:

No mechanical mix required, but ensure uniform temperature before use. Recirculate material **10–15 minutes** prior to spraying if necessary.

### PRESSURE SETTINGS:

Use a plural-component proportioner rated for at least **900 psi dynamic pressure**. Maintain static pressure between **900–1450 psi**.

### TEMPERATURE SETTINGS:

Hose & preheater: **105–135°F (both A & B)**. Adjust based on substrate, ambient temperature, and humidity. Warmer temps for winter, cooler for summer.

## PROCESSING PARAMETERS

PARAMETER	RECOMMENDED RANGE
Dynamic Fluid Pressure	1,000 – 1,500 psi
Mixing Ratio	1:1
Hose Heat	115°F – 140°F
Preheat Temperature	"A" & "B" Components: 115°F – 140°F
Recommended Mixing Chamber	02
Storage Temperature	50°F – 80°F
Ambient Range	14°F – 120°F
Ambient Temp During Spray	>5°F above dew point
Moisture Content (Substrate)	<19%
Max Lift per Pass	12"

## RECOMMENDED APPLICATIONS

### RESIDENTIAL INTERIOR APPLICATIONS:

Ideal for use in wall cavities, ceilings, attics, crawl spaces, interior foundations, cathedral ceilings, ductwork, and rim joists.

### INDUSTRIAL APPLICATIONS:

Suitable for wall enclosures—including steel structures—both above and below grade, as well as foundation walls and the underside of decks.

### COMMERCIAL INTERIOR APPLICATIONS:

Designed for walls, foundation walls, and the underside of roof decks.

## GENERAL PRODUCT INFO

ITEM	DESCRIPTION
Product Color	Beige
Packaging	55-gallon drum
Re-entry Time (worker)	1 hour
Re-occupancy	24 hours

## APPLICATION STEPS

Applied at a maximum of **6" per pass**.  
Substrate temperature range: **20-120°F**

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

## THERMAL RESISTANCE

THICKNESS (Inch)	R-VALUE
1.0	3.7
2.0	7.4
3.0	11.1
3.5	12.95
4.0	14.8
5.0	18.5

## LIQUID PROPERTIES @77°F

PROPERTY	A-SIDE (ISO)	B-SIDE (RESIN)
Specific Gravity	1.23	1.35
Viscosity	250 ± 50 cps	200-300 cps



## SUBSTRATE PREPARATION

### WOOD

Ensure 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), and free from dust or oil.  
Fill voids or cracks before application.

### PREVIOUSLY APPLIED FOAM

Remove any old or incompatible foam 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 **50°F – 80°F**  
**6-month** shelf life (unopened containers from date of manufacture)  
Do not break product seal during storage  
Keep containers dry and out of direct sunlight

## HEALTH & SAFETY HANDLING

When spraying or handling **Therma-Lok® 504EZ** ISO and Resin, the following protective measures and equipment are recommended:

### Protective Equipment

- Wear a fabric coverall
- Use nitrile gloves
- Use protective eyewear
- Wear a supplied full-face fresh air respirator
- Always utilize appropriate personal protective equipment

### 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 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.

## STORAGE & SHELF LIFE

- Use local exhaust ventilation during spraying.
- Always wear safety glasses, chemical-resistant gloves, protective clothing, and a NIOSH-approved supplied-air respirator in positive pressure mode for confined spaces.
- 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**

## 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 the manufacturer 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 in accordance with local building code requirements.

## MAINTENANCE

Regular equipment cleaning ensures consistent performance. Follow manufacturer 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: 812.776.6251**  
**Website: sprayips.com**

