



THERMA - LOK™ | 500MAX

PRODUCT DESCRIPTION

Introducing THERMA-LOK™ 500MAX, a versatile two-component, one to one by volume spray-applied polyurethane foam insulation. THERMA-LOK™ 500MAX is engineered as a high-yield, low-density solution, boasting a hassle-free, no-mix application process suitable for a wide temperature range & adaptable to various climate conditions. This environmentally conscious insulation product contains no ozone-depleting blowing agents & relies on 100% water. It is specifically designed to excel in thermal performance and provides effective control of air infiltration as an air-barrier assembly. It consistently delivers high-quality performance, reducing downtime & enhancing on-site efficiency creating an innovative insulation solution for all your needs.

PRODUCT DATA

	TEST METHOD	VALUES
R-Value	ASTM C518	3.75 @ 1"
Core Density lb/ft ³	ASTM D1622	.5 pcf
Water Vapor Permeance @ 2"	ASTM E96	27.6 perms
Air Permeance	ASTM E2178	.0019 cfm/ft ²
Tensile Strength	ASTM D1623	3.3psi
Dimensional Stability	ASTM D2126	-0.1% @ 158°F & 97% RH
Flame Spread	ASTM E84	20
Smoke Development	ASTM E84	215
Open - Cell, content (%)		100

THERMAL BARRIERS

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

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

R-Value at 1"	3.75
R-Value at 3.5"	13.0

LIQUID PROPERTIES AT 77°F

	A-SIDE (ISO)	B-SIDE (RESIN)
Specific Gravity	1.23	1.15
Viscosity	250 +/- 50 cps	500-1,000 cps

SUGGESTED STORAGE AND PRODUCT SHELF LIFE

- Store product at 64 - 86°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	Cream	
Product Packaging	55 Gallon Drum	
Re-entry Times	Re-entry (worker) = 1 hour	Re-occupancy = 2 hours

CREDENTIALS

THERMA-LOK™ 500 EZ has been tested by a third party laboratory (Intertek Testings Services NA, Inc.)

CCRR-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. - Moisture content of porous materials must be below 19% before application of the foam. - 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"> - THERMA-LOK™ 500MAX is fully compatible with CPVC piping systems (Paschal Engineering Study for the SPFA). - THERMA-LOK™ 500MAX is compatible with typical electrical wiring coverings. (NEMA Bulletin 95).

PROCESSING PARAMETERS

Preconditioning	1. It is advised to precondition the material to 68-86°F before application. At lower temperatures, the material may thicken, potentially causing pump cavitation.
Mixing	2. Before use, thoroughly mix the resin component for at least 30 minutes using an electric or pneumatic mixer. Depending on the ambient temperature, additional mixing may be necessary throughout the day. To raise the material's temperature, it can be circulated through the processing equipment. Be cautious not to overheat, as excessive heat may negatively impact yield.
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 1,000 and 1,500 psi.</p>
Temperature Settings	7. Primary and hose heaters are typically set between 130°F and 140°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 14°F -120°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-LOK™ 500MAX should not exceed 12" 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.

