

# Insulthane® Versa | General Purpose Spray Foam

## Product Description

Insulthane® Versa is a two component, high-lift, closed-cell spray polyurethane foam (ccSPF) insulation system. Its high yield, superior thermal and moisture performance, environmental benefits and exceptional adhesion make it ideal for a variety of general purpose applications.

**Disclaimer: Please note that this material does not comply with CAN/ULC-S705.1**

## Recommended Uses

- General use for insulation panels and other cavities
- Agricultural applications
- Industrial applications

## Appearance

The final cured product is cream in colour (natural).

## Storage Recommendation

Store in a dry location between 10-32°C (50-90°F). Keep drums tightly sealed when not in use. Drums must be stored out of direct sunlight.

## Application Information

Applied at a maximum of 3.5" (89 mm) per pass. Core temperature of initial pass must cool below 38°C (100°F) before an additional pass is added. This process will be repeated for each additional pass to ensure proper heat dissipation.

Foam must be protected from UV exposure within 90 days of application. Apply ccSPF insulation only when surfaces and ambient temperatures are within manufacturers' prescribed limits. Ambient humidity should be below 80% and substrate temperatures must be more than 5°F above dew point to avoid condensation risks.

## Precautions

Like many construction materials, spray polyurethane foam is a combustible product. Therefore, installers and occupants are to take precautions and safety measures to ensure the foam does not come into contact (within 75 mm) of any devices that have a surface temperature exceeding 80°C.

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## Typical Properties

Attribute	Test	Results
Core Density	ASTM D1622	2.2 lb/ft <sup>3</sup>
R Value (Aged 90 Day)	ASTM C518	7.4 @ 1"
Dimensional Stability <sup>1</sup> (Volume Change After 7 Days)	ASTM D2126	-4.46% @ 158°F & 97% RH
Compressive Strength	ASTM D1621	26.4 psi
Tensile Strength	ASTM D1623	33 psi
Closed Cell Content	ASTM D2856	97.5%
Water Absorption	ASTM D2842	0.5%
Water Vapour Transmission	ASTM E96	0.83 perms @ 1"
Air Permeance @ 75 Pa	ASTM E2178	0.002 L/s-m <sup>2</sup>
Hot Surface Performance	ASTM C411	90°C (194°F)
Fungi Resistance	ASTN C1338	Pass, no growth

<sup>1</sup> Dimensional Stability tested without substrate.

## Burn Characteristics

Attribute	Test	Results
Flame Spread	CAN/ULC-S102	Pass
Corner Wall Test	CAN/ULC-S127	Pass
Surface Burning Characteristics @ 4"	ASTM E84	Class 1 (A)

## Thermal Resistance (ASTM C518) [Aged 90 Days]

Thickness (Inch)	R-Value (°F-ft <sup>2</sup> -h/Btu) <sup>2</sup>
1.0	7.4
2.0	15
3.0	22
3.5	26
4.0	29

<sup>2</sup> Thermal resistance above 3.5" calculated using R = 7.3/inch. R-values between 1 and 3.5 are interpolated.

### Air Barrier Testing Results

The air barrier assembly has been evaluated and meets the ABAA Evaluation process.

ASTM E2357      0.001 L/s-m<sup>2</sup> @ 75 Pa  
                          0.0002 cfm/ft<sup>2</sup> @ 1.57 psf

### Processing Parameters

Attribute	Parameter
Pressures	1000-1500 psi (dynamic)
Pre-Heater Temperature	"A" and "B" 43-54°C (110-130°F)
Hose Temperature	"A" and "B" 43-54°C (110-130°F)
Drum Temperature In Use	20 - 25°C (68 - 77°F)
Surface Temperature	10 - 50°C (50 - 122°F)

For optimal processing of ccSPF, Elastochem recommends the above parameters in use with a Graco Fusion AP/CS gun equipped with an AR 4242/AR 4747 chamber. The use of larger gun chambers may result in diminished yield and physical properties.

### Liquid Component Properties

Attribute	Isocyanate	Resin
Colour	Brown	Amber
Viscosity @ 77°F	150 - 250 cps	600 cps
Specific Gravity @ 77°F	1.24	1.18
Shelf Life	12 months	6 months
Mix Ratio	1 to 1 by volume "A" to "B"	

### Packaging

Drums	Weight	Volume
Part A (ISO)	500 lbs (227 kg)	51 gal. (192 L)
Part B (Resin)	500 lbs (227 kg)	48 gal. (183 L)
Totes	Weight	Volume
Part A (ISO)	2500 lbs (1134 kg)	254 gal. (960 L)
Part B (Resin)	2500 lbs (1134 kg)	242 gal. (915 L)

### Adhesion

Insulthane® Versa will adhere to most construction materials. Substrates must be free of grease, oil, dirt, and surface moisture. Moisture content of porous materials must be below 19% before application of foam.

Manufacturer can be contacted for material compatibility, surface preparation techniques and adhesion on commonly encountered construction materials.

It is up to the builder or designer to determine the suitability of the material for any project. The installer must verify the compatibility of the product at the time of application due to the variability of weather conditions, material suppliers and site conditions which may impact the performance of the product.

### Health and Safety Handling

When spraying or handling Insulthane® Versa ISO and resin the following protective steps and equipment are recommended:

#### Protective Equipment

- Fabric coverall (non-porous)
- Nitrile gloves
- Protective eyewear
- Supplied full face fresh air respirator (while spaying)
- Use personal protective equipment (see SDS)

#### Exposure

- Avoid all contact with skin
- Avoid all contact with eyes
- Do not ingest
- Do not inhale vapors

In case of exposure, please refer to the Safety Data Sheet (SDS) for first-aid measures.

#### Spills

In case of spills, contain and collect spillage with a non-combustible absorbent material, such as: sand, earth, clay-based oil absorbent (kitty-litter), etc.



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