

# Insulthane® HC 60 | High Compressive Strength Foam

## Product Description:

Insulthane® HC 60 is a high-compressive strength spray polyurethane foam insulation that delivers excellent resistance to high impact loads, moisture and extreme temperatures, making it ideal for under slab insulation and slab support in traffic bearing areas. Insulthane® HC is offered in a series of various compressive strengths suitable for commercial and industrial applications. The spray application creates a continuous insulation system that leaves no seams or other imperfections in the thermal barrier.

## Features:

- Monolithic spray application
- Built-in Vapour Barrier
- Stable long term R-values
- Air sealing properties
- Reduces waste and labour

## Recommended Applications:

- Under slab
- Highways
- Airport runways
- Bridge abutments
- Parking decks
- Utility lines
- Ice rinks
- Plaza deck applications

Note: Insulthane HC is not approved for wall insulation.

## Storage:

Store in a dry location between 10-38°C (50-100°F). Keep drums tightly sealed when not in use. Drums must be stored out of direct sunlight.

## Processing Parameters:

Attribute	Parameter
Pre-Heater Temperature	"A" and "B": 115-125°F (46-52°C)
Hose Heat Temperature	"A" and "B": 115-125°F (46-52°C)
Pressures	1000-1400 psi (69-97 bar)
Mix Ratio (by volume)	1 to 1 "A" to "B"

## Liquid Component Properties:

Attribute	Isocyanate	Resin
Colour	Brown	Amber
Viscosity	250 cps	500 cps
Specific Gravity	1.24	1.20
Shelf Life	12 months	12 months
Drum Temperature In-Use	20-30°C (68-86°F)	20-30°C (68-86°F)

## Curing:

Time Elapsed	Suitable for
After 2 Hours	Light foot traffic
After 24 Hours	Pouring of concrete

Insulthane HC products cure to > 90% within 4 hours.

## Typical Properties:

Attribute	Test	Results
R-Value (Aged 90 days)	R-11.0 (1.93 RSI) @ 50mm	ASTM C518
Compressive Strength	60 psi	ASTM D1621
Core Density	3.0 lbs/ft <sup>3</sup>	ASTM D1622
Closed Cell Content	> 90%	ASTM D2856
Tensile Strength	41 psi	ASTM D1623
Water Absorption	<1 %	ASTM D2842
Water Vapour Permeance	44 ng/ (Pa·s·m <sup>2</sup> ) @ 50mm	ASTM E96
<b>Dimensional Stability:</b>		
28 days at -20°C (- 4 °F)	< 5%	ASTM D2126 % Change in Volume
28 days at 80°C (176 °F)	< 5%	
28 days at 70°C (158 °F) & 97% RH	< 5%	

## Preparation and Application:

### Mixing:

- Mix the Resin component for a minimum of 30 minutes with an electric or pneumatic mixer prior to use (expanding blade mixer).
- The materials can be circulated through the processing equipment to raise the temperatures in the drums.
- Care should be taken to not over overheat the material as this could have adverse effects on the performance.

### Surface Preparation:

- Surfaces must be clean, dry and free of contaminates.
- Humidity should be < 85% RH.
- The substrate temperature must be greater than 3°C (5°F) above the dew point.

### Application:

- Before application, material must be tested on-site to determine the curing, reactivity and performance of material under site conditions.
- Application of material should be no less than 0.5 in (13 mm) and no greater than 2 in (50mm) in a single pass.
- Allow the core temperature of the foam to cool below 37°C (100°F) before the application of additional passes.
- Foam should be applied to full thickness in any given area within the same day.

### Coatings:

- In the event that Insulthane HC requires a coating, it should be applied within a 24-hour period of the foam being installed.

**Note:** It is up to the applicator/contractor to determine the suitability and performance of the material for the project. Other preparation techniques or application information may be required for unique/specialized projects. Contact an Elastochem Technical Representative for more information.

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### Health and Safety Handling

When Spraying or handling Insulthane HC60 Iso and Resin the following protective steps and equipment are recommended:

#### Protective Equipment

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

#### Exposure

- Avoid all contact with skin
- Avoid all contact with eyes
- Do not ingest
- Do not inhale the vapours

In case of exposure, please refer to the 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.

For larger spills, contact CANUTEC at 613-996-6666.

#### Re-occupancy/Re-entry

Re-occupancy of the work area by other trades or building occupants is 24 hours.

#### Ventilation

Properly fitting breathing apparatus supplying fresh air must also be worn by the installers and all other trades or helpers within 10 meters (33 feet) working distance of the installer. Protective gloves, coveralls, eye protection, safety shoes and hard hats must also be worn while spraying. Mechanical ventilation with a minimum 0.3 air changes per hour is also required during and after spray installation.



Elastochem Specialty Chemicals Inc.  
37 Easton Road Brantford, ON N3P 1J4  
1-877-787-2436 | [www.elastochem.com](http://www.elastochem.com)



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