

# SPECIFICATION INFORMATION



## Under-Slab Insulation/Vapor Barrier

Division: 0700

Revision #1

### 1.0 Product Name

**Insul-Tarp®**  
Under-Slab Insulation/Vapor Barrier.

### 2.0 Manufacturer



**Insulation Solutions®**

Insulation Solutions Inc.  
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Engineering Assistance  
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### 3.0 Product Description

#### 3.1 Basic Use:

**Insul-Tarp®** is an under-slab insulation/vapor barrier designed to provide a thermal break and moisture barrier between the slab and grade. When used with radiant heated slab applications, **Insul-Tarp®** will increase the performance of the system by reflecting heat back into the slab.

**Insul-Tarp®** can also reduce condensation, mold and degradation by controlling water vapor migration.

#### 3.2 Composition & Materials:

**Insul-Tarp®** is a half-inch, multilayer insulation. **Insul-Tarp®** is manufactured using cross woven polyethylene, high density closed-cell foam, a layer of high density polyethylene bubble and two layers of reflective aluminum. These layers combine to provide consistent thermal and moisture protection.

#### 3.3 Size:

**Insul-Tarp®** is available in 6' X 25', 6' X 50', 12' X 25' and 12' X 50'. Estimate 10% overage as roll sizes are approximate.

#### 3.4 Weight:

**Insul-Tarp®** weighs approximately 12.5 lbs. per 150 sq. ft.

### 4.0 Technical Data

#### 4.1 Applicable Standards

American Society for Testing & Materials (ASTM)

- **ASTM C 518-02** Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
- **ASTM E 96** Standard Test Methods for Water Vapor Transmission of Materials
- **ASTM E 1643** Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs
- **ASTM D 412-98** Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers-Tension
- **ASTM D 3575** Standard Test Methods for Flexible Cellular Materials Made From Olefin Polymers
- **ASTM D 751** Standard Test Methods for Coated Fabrics
- **ASTM D 1922** Standard Test Method for Propagation Tear Resistance of Plastic Film and Thin Sheeting by Pendulum Method

*Note: To the best of our knowledge, these are typical property values and are intended as guides only, not as specification limits. Insulation Solutions Inc.® makes no warranties as to the fitness for a specific use or merchantability of products referred to, no guarantee of satisfactory results from reliance upon contained information or recommendations and disclaims all liability for resulting loss or damage.*

PROPERTIES	TEST METHOD	INSUL-TARP®
<i>Test Results - Independent Test Facility</i>		<i>English</i>
Thickness, Nominal		¾" (½" Compressed)
Weight Per 150 sq. ft.		12.5 lbs.
Average Thermal Resistance (System R-value)	ASTM C 518-02 (hr•ft²•°F/Btu)	R - 7.54* / R - 10.1**
Tensile Strength and Elongation (Bubble Pack)	ASTM D 412-98	136 psi
Tensile Strength (Cross Woven Polyethylene)	ASTM D 751 (Grab)	45 lbf/in.
Compression Set	ASTM D 3575-00	4.3%
Compression Set	ASTM D 3575-10-16	3.2%
Bursting Strength (Bubble Pack)	ASTM D 751-00 (Ball Burst)	95.1 lbf
Bursting Strength (Bubble Pack)	ASTM D 751-73 (Mullen)	90 psi
Tear Strength (Cross Woven Polyethylene)	ASTM D 1922 (Tongue Tear)	28 lbs (Warp) 33 lbs (Fill)
Maximum Use Temperature		180° F
Minimum Use Temperature		-60° F
Water Vapor Permeance	ASTM E 96	.002 perms CLASS A

\* R - 7.54 Non-Radiant Applications

\*\* R - 10.1 Radiant Applications

#### 4.2 Environmental Considerations:

**Insul-Tarp®** can be used as a radon and methane gas barrier.

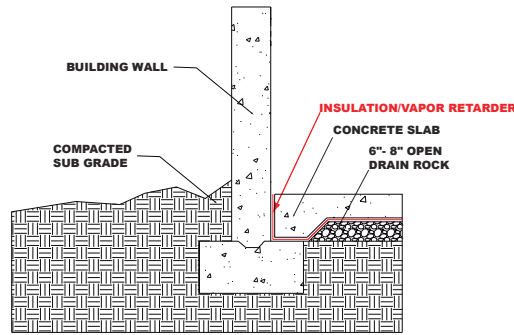
#### 4.3 Physical Properties

**Insul-Tarp®** conforms to the subsoil and will not crack or break when walked upon.

### 5.0 Installation

#### INSUL-TARP® PLACEMENT

- 5.1 Level and tamp or roll granular base as specified by your architectural or structural drawings.
- 5.2 Unroll **Insul-Tarp®** with the longest dimension parallel with the direction of the pour.
- 5.3 Lap **Insul-Tarp®** over the footings and seal to the vertical foundation walls with appropriate tape. Seal around pipes, support columns or any other penetration by cutting an 'X' in the **Insul-Tarp®** and sliding it over the obstruction. Doing so will create a monolithic membrane between the surface of the slab and moisture sources below and at the slab perimeter.
- 5.4 Holes or openings through **Insul-Tarp®** should be effectively sealed with appropriate tape to maintain the integrity of the vapor barrier. Overlap joints a minimum of four inches. Seal overlap together with appropriate tape.



#### PROTECTION

- 5.5 When installing reinforcing steel and utilities in addition to the placement of concrete, take precaution to protect **Insul-Tarp®**. Carelessness during installation can damage the most puncture-resistant insulation/vapor barrier. Provide for additional protection in high-traffic areas.
- 5.6 Place standard reinforcing bar supports on **Insul-Tarp®**. The cross woven structure of **Insul-Tarp®** will help guard against possible punctures caused by reinforcing bar supports.
- 5.7 Avoid driving stakes through **Insul-Tarp®**. If this cannot be avoided, each individual hole must be repaired.
- 5.8 If a cushion or blotter layer is required in the design between the insulation/vapor barrier and the slab, additional care should be taken, especially if sharp crushed rock is used. Washed rock will provide less chance of damage during placement.

(These are very general installation instructions. Instructions on architectural or structural drawings should be reviewed and followed as well. ASTM E 1643 also provides valuable installation information).

### 6.0 Availability & Cost

**Insul-Tarp®** is sold through construction and HVAC supply houses across the United States and Canada.

**Insul-Tarp®** current cost information can be obtained by calling our corporate sales office at 866-698-6562.

### 7.0 Warranty

To the best of our knowledge, the specification chart on page one lists typical property values and are intended as guides only, not as specification limits. INSULATION SOLUTIONS INC. MAKES NO WARRANTIES AS TO THE FITNESS FOR A SPECIFIC USE OR MERCHANTABILITY OF PRODUCTS REFERRED TO, NO GUARANTEE OF SATISFACTORY RESULTS FROM RELIANCE UPON CONTAINED INFORMATION OR RECOMMENDATIONS AND DISCLAIMS ALL LIABILITY FOR RESULTING LOSS OR DAMAGE.

### 8.0 Maintenance

If air pockets occur when pouring the concrete slab, simply cut a slit in the top layer of the tarp to release any trapped air. Place a piece of appropriate tape over the slit and continue pouring.

### 9.0 Technical Services

Technical Information and detailed test results can be obtained by calling our corporate office at 866-698-6562.

### 10.0 Filing Systems

Additional Information is available from the manufacturer.