

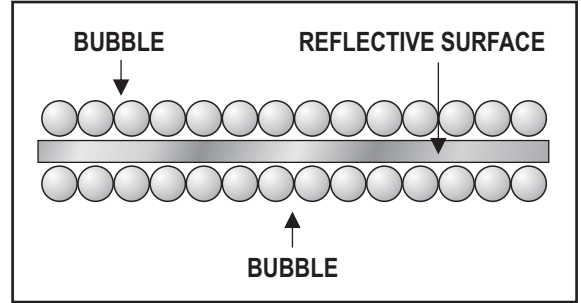
**ULTRA (CBF) CONCRETE BARRIER FOIL**

TECHNICAL DATA

**Product Description:**

rFOIL™ Ultra CBF is a patented under-concrete insulation product, comprised of a highly reflective sheet, sandwiched between two layers of industrial strength polyethylene bubbles. This unique design protects the reflective surface from corrosive chemicals, and ensures that an airspace is maintained for optimum thermal performance.

Installing Ultra CBF can result in noticeably warmer floors, faster slab response times and reduced BTU consumption of radiant heating systems. Sealing seams with rFOIL™ White Poly Tape ensures a uniform insulator and vapor barrier.



**Stock Sizes Available (Rolls):**

Size	<b>48" X 125'</b>	<b>16" X 125'</b>
Part No.	1620-48-125	1620-16-125

**Features:**

- Can easily be installed over rough grade
- Superior bubble strength withstands jobsite traffic
- Methane, radiant and vapor barrier all-in-one
- Multi-Layer 14.2 mil Bubble Core
- Helps direct radiant heat into the living space
- Can easily be formed around plumbing, wiring etc.
- Installation is quick, safe and easy

**Applications:**

- Radiant heating in a concrete floor
- Duct wrap for below-grade HVAC
- Radiant heating with a subfloor
- Radiant heating in a snowmelt

Physical Properties	Test	Value
NOMINAL THICKNESS	—	5/16"
WEIGHT	—	1.16 oz / sq. ft.
TEMPERATURE RANGE	ASTM C411	-50°F to 180°F
EMISSIVITY	ASTM C1371-04A	43%
REFLECTIVITY	ASTM E903	57%
COMPRESSION STRENGTH	ASTM D751	140 psi
TENSILE STRENGTH	CAN/CGSB - 51.33-M89	21.13 lbs/sq. in.
DEFLECTION	ASTM 1621	<10% under 0.5 PSI
PUNCTURE RESISTANCE	—	85 lbs/sq. in.
WATER VAPOR PERMEABILITY	ASTM E96, ONGC 51.33-M89	<0.01 Perms
RESISTANCE TO FUNGI & BACTERIA	ASTM C1338	DOES NOT PROMOTE GROWTH
LINEAR SHRINKAGE	—	NONE
FLEXIBILITY	CAN/CGSB - 51.33-M89	NO CRACKING



**PATENTS**

US Patent No.: 6,562,439,B2

US Patent No.: 6,514,596,B1



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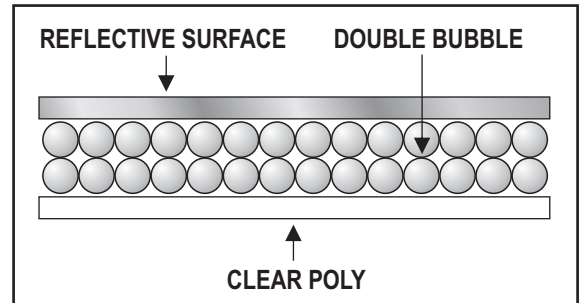


## ULTRA CONCRETE UNDERPAD

### Product Description:

rFOIL™ Ultra Concrete Underpad consists of a double layer of polyethylene bubbles sandwiched between a highly reflective surface and a clear polyethylene sheet. It is ideal for many under-slab insulation applications, as the aluminum surface is treated with a coating designed to protect it from curing concrete.

Using rFOIL™ Ultra Concrete Underpad in your construction project can improve the efficiency of radiant heating systems and significantly decreases heat loss to the ground below. Ultra Concrete Underpad is also an approved vapour barrier.



### Stock Sizes Available (Rolls):

Size	<b>48" X 125'</b>	<b>72" X 125'</b>	<b>96" x 125'</b>
Part No.	4620-48-125	4620-72-125	4620-96-125

### Features:

- Protective coating over highly reflective surface
- Reduces heat loss to the ground below
- Quick, safe and easy to install
- Multi-Layer 11 mil Bubble Core
- Double bubble provides an effective thermal break
- Approved vapor barrier
- Available in 500 and 750 sq. ft. rolls.

### Applications:

- Radiant heating applications
- Under-slab insulation

Physical Properties	Test	Value
NOMINAL THICKNESS	—	5/16"
FIRE RATING	ASTM E84-09	CLASS 1 / CLASS A
FIRE RATING - FULL ROOM BURN	NFPA 286	PASSES
EMISSIVITY	ASTM C1371-04A	0.04
REFLECTIVITY	ASTM E903	0.96
WATER VAPOR PERMEABILITY	ASTM E96	0.42 Perms
RESISTANCE TO FUNGI & BACTERIA	ASTM C1149	DOES NOT PROMOTE GROWTH
PLIABILITY	ASTM C1224-03	NO CRACKING
BLEEDING AND DELAMINATION	ASTM C1224-03	NO BLEEDING OR DELAMINATION
CORROSIVENESS	ASTM D3310-00	PASSES
COMPRESSION	—	90 PSI

Verified by



### PATENTS

US Patent No.: 8,221,871  
US Patent No.: 8,327,601  
US Patent No.: 8,343,614

US Patent No.: 7,935,410  
US Patent No.: 7,935,411

CDN Patent No.: 2,554,754  
CDN Patent No.: 2,591,589



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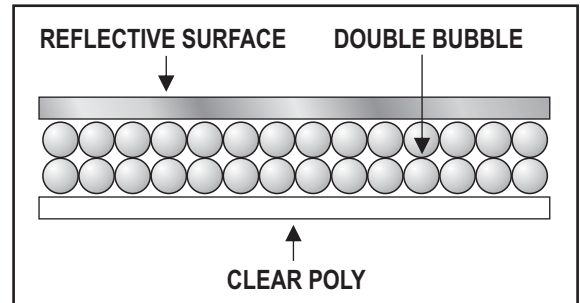
## CONCRETE UNDERPAD

TECHNICAL DATA

### Product Description:

rFOIL™ Concrete Underpad consists of a double layer of polyethylene bubbles, sandwiched between an aluminum surface, and a clear polyethylene sheet. It is ideal for many under-slab insulation applications, as a protective film is applied to the aluminum surface - virtually eliminating the risk of corrosion.

Using rFOIL™ Concrete Underpad in your construction project can improve the efficiency of radiant heating systems and significantly decreases heat loss to the ground below.



### Stock Sizes Available (Rolls):

Size	<b>48" X 125'</b>	<b>72" X 125'</b>	<b>96" X 125'</b>
Part No.	4320-48-125	4320-72-125	4320-96-125

### Features:

- Protective coating over aluminum surface
- Reduces heat loss to the ground below
- Quick, safe and easy to install
- Multi-Layer 8.4 mil Bubble Core
- Double bubble provides an effective thermal break
- Approved vapor barrier
- Available in 500, 750, and 1000 sq. ft. rolls.

### Applications:

- Radiant heating applications
- Under-slab insulation

Physical Properties	Test	Value
NOMINAL THICKNESS	—	5/16"
FIRE RATING	ASTM E84-09	CLASS 1 / CLASS A
FIRE RATING - FULL ROOM BURN	NFPA 286	PASSES
EMISSIVITY	ASTM C1371-04A	0.04
REFLECTIVITY	ASTM E903	0.96
WATER VAPOR PERMEABILITY	ASTM E96	0.42 Perms
RESISTANCE TO FUNGI & BACTERIA	ASTM C1149	DOES NOT PROMOTE GROWTH
PLIABILITY	ASTM C1224-03	NO CRACKING
BLEEDING AND DELAMINATION	ASTM C1224-03	NO BLEEDING OR DELAMINATION
CORROSIVENESS	ASTM D3310-00	PASSES
COMPRESSION	—	70 PSI

Verified by



### PATENTS

US Patent No.: 8,221,871  
US Patent No.: 8,327,601  
US Patent No.: 8,343,614

US Patent No.: 7,935,410  
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