

FEATURING POLYISOCYANURATE FOAM



Vent-Top ThermaCal¹

For Shingles and Metal Roofing

- Single layer of sheathing
- Nominal 4' x 8' panel

Vent-Top ThermaCal²

For Slate, Tile and Maximum Loading

- Two layers of sheathing
- Nominal 4' x 8' panel

CODE ACCEPTABILITY CERTIFICATION

CODES - O.S.B. is approved by CABO, ICBO, BOCA, SBC, ARMA and the APA as roof sheathing. The foam used in Vent-Top ThermaCal¹ and 2 has a Flame Spread Rating of 25** or less. Foam with Factory Mutual Class 1 approval per FMRC Standard 4450/4470 is used. Generally the three major building codes require F.S. = 75 or less for any plastic insulation. Over steel deck F.S. = 25 or less is usually required. **CHECK LOCAL CODES** **This numeric Flame Spread Rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

UNDERWRITERS LABORATORIES

Vent-Top ThermaCal[®] is classified under UL Standard 790 (ASTM E108) as a Shingle Decking Accessory for use with Class A, B or C shingles. It is also fire classified under UL Standard 1256 for Insulated Metal Deck Assemblies, Constructions No. 120 and No. 123.

CODES AND COMPLIANCES

FEDERAL SPECIFICATION-meets the physical property requirements of HH-1-1972/GEN. The foam meets ASTM C1289-95.

MODEL CODES-foam insulation is in compliance with:

- BOCA- Section 2603.0
- ICBO- Section 2602
- SBCCI- Section 2603.2

VENT SPACE PROPERTIES

Depth 1" (25 mm)
 Cross Section 10 Sq. In. of Net Free Area/Lin.Ft. (212 Sq.Cm./meter).
 Open Area Not less than 92% of plan area
 Max. Spacer Separation Less than 12" (300 mm)

PHYSICAL PROPERTIES

O.S.B. Sheathing Conforms to APA rated sheathing standard PRP 108, Exposure 1 and HUD/FHA-918.

Foam

Flame Spread	E84	25 or less
(polyisocyanurate)		
k Factor (aged)	C177	0.16
Vapor Permeance	E96	approx. 1.25 perm

Vent-Top ThermaCal¹

DATA TABLE

APPROX. OVERALL THICKNESS		WEIGHT P.S.F.	LTTR R-VALUE*
3.0"	75 mm	1.9	9.0
3.5"	89 mm	2.0	12.0
4.0"	102 mm	2.1	15.3
4.5"	114 mm	2.2	18.5
5.0"	127 mm	2.3	21.7
5.5"	140 mm	2.4	25.0
6.0"	152 mm	2.5	28.1
6.5"	165 mm	2.6	31.2
7.0"	178 mm	2.7	34.3
7.5"	190 mm	2.8	37.4
8.0"	203 mm	2.9	40.5

*Long Term Thermal Resistance (LTTR) R values are determined in accordance with CAN/ULC-S770. This is a 15 year time-weighted average value and was adopted by U.S. polyisocyanurate manufacturers on January 1, 2003. The nominal foam thickness is 1-1/2" less than the overall panel thickness.

Vent-Top ThermaCal²

DATA TABLE

APPROX. OVERALL THICKNESS		WEIGHT P.S.F.	LTTR R-VALUE*
3.5"	89 mm	3.3	10.2
4.0"	102 mm	3.4	12.7
4.5"	114 mm	3.5	15.9
5.0"	127 mm	3.6	19.2
5.5"	140 mm	3.7	22.4
6.0"	152 mm	3.8	25.6
6.5"	165 mm	3.9	28.0
7.0"	178 mm	4.0	31.2
7.5"	190 mm	4.1	34.4
8.0"	203 mm	4.2	37.7

*Long Term Thermal Resistance (LTTR) R values are determined in accordance with CAN/ULC-S770. This is a 15 year time-weighted average value and was adopted by U.S. polyisocyanurate manufacturers on January 1, 2003. The nominal foam thickness is 2" less than the overall panel thickness.

Note: The designer should determine if a vapor barrier is required between the deck and the insulation. A vapor retarder should always be specified in buildings with high humidity.

DRAFT SPECIFICATIONS - SHORT FORM

Note to Specification Writer: This draft spec can be used for Vent-Top ThermaCal[®] and Vent-Top ThermaCal[®] X Performance Roof Panels. This spec is usually placed in Section 07 22 00. It can be downloaded from our website: www.cornellcorporation.com.

1. VENTILATED ROOF INSULATION

A. Description of system:

1. The ventilated roof insulation shall be a factory assembled panel consisting of one or two layers (Spec writer to choose) of 7/16" oriented strand board top surface, a built-in ventilation space maintained by 1" wood spacer blocks, and polyisocyanurate or extruded polystyrene insulation on the bottom.

2. The Long Term Thermal Resistance (LTTR) R-Value of the ventilated roof insulation shall be no less than _____.

3. Wood panel edges shall be rabbetted to allow the foam edges to fit together while providing clearance between the wood sheathing on adjoining panels.

4. Foam sides and ends shall have a tongue and groove profile to reduce heat loss at the joints.

5. The wood spacer blocks shall not exceed 8% of the panel area and shall have 50% open for lateral (across the slope) ventilation. Spacer blocks shall not be over 12" apart in either direc-