

Date: October 2015

Amvic Products: Amvic Insulated Panel for Radiant Heating, AMPEX75, AMPEX20, APMPEX25 & AMPEX30 series.

Bulletin Overview: The Amvic Insulated Panels for Radiant Heating has been designed to incorporate the thermal mass of concrete for under slab, Ice melts and similar construction applications, this bulletin relates to the specific applications for the above AMVIC products as they apply to the Installation code for Hydronic heating systems CSA B.214-12 and the National Building Code of Canada (NBCC) section 9.33.4.2

National Building code of Canada (NBCC)

Section 9.33.4.2 Installation of Hydronic Heating Systems;

1) The installation of a hydronic heating system shall conform to applicable provincial or territorial regulations or municipal bylaws or, in the absence of such regulations or bylaws, to CAN/CSA-B214, Installation Code for Hydronic Heating Systems

CAN/CSA-B214-12 Installation code for Hydronic Heating Systems.

14.4.4 Insulation

14.4.4.1

When a poured concrete radiant floor system is installed in contact with the soil, insulation that complies with Clause 14.4.4.3 and has a minimum RSI value of 0.9 m²•K/W (R-value of 5 h•ft²•°F/Btu) shall

- (a) Be placed between the soil and the concrete;*
- (b) Extend as close as practical to the outside edges of the concrete; and*
- (c) Be placed on all slab edges.*

14.4.4.2

When a poured concrete radiant floor system is installed on grade, insulation that complies with Clause 14.4.4.3 and has a minimum RSI value of 0.9 m²•K/W (R-value of 5 h•ft²•°F/Btu) shall be placed on all vertical slab edges.

14.4.4.3

Thermal insulation installed under a poured concrete radiant floor system in contact with the soil shall Comply with the requirements of

- (a) CAN/ULC-S701;*
- (b) CAN/ULC-S704; or*
- (c) CAN/ULC-S705.1.*

2 7.4.4 Poured concrete slab systems (thermal mass)

17.4.4.4 Insulation



When a poured concrete snow melt system is installed in contact with the soil, insulation that complies with Clause 14.4.4.3 and has a minimum RSI value of 0.9 m²•K/W (R-value of 5 h•ft²•°F/Btu) shall

- (a) Be placed between the concrete and the compacted grade;*
- (b) Extend as close as practical to the outside edges of the concrete; and*
- (c) Be placed on all vertical slab edges that are in contact with plants or landscaping.*

The Amvic Insulated Panels for Radiant Heating will comply with the above clauses in CAN/ CSA B. 214-12 as per the following test requirement as per the National building code of Canada (NBCC) Section 9.25.2.

Section 9.25.2. Thermal Insulation

Section 9.25.2.1. Required Insulation

1) All walls, ceilings and floors separating heating space from unheated space, the exterior air or the exterior soil shall be provided with sufficient thermal insulation to prevent moisture condensation on their room side during the winter and to ensure comfortable conditions for the occupants.

Section 9.25.2.2. Insulation Material

C) CAN/ULC –S701, “Thermal Insulation, Polystyrene, Boards and Pipe Covering,”

For third party testing and manufacturing quality control certification according to CAN/ULC-S701 Standards, Amvic use QAI Laboratories. The listing for these products can be found at;

http://www.qai.org/Listing_Pages/QAI_Listing_B1061-1_Amvic_Incorporated.htm

This information is also listed on the Amvic Website;

<http://www.amvicsystem.com/icf/icf-code-approvals-technical-testing/>

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