The purpose of this bulletin is to review requirements for PlastiSpan insulation used in metal roof deck assemblies which form part of a building required to be of non-combustible construction as illustrated below.

Requirements for metal roof deck assemblies are addressed in Article 3.1.14.2. of the 2005 National Building Code of Canada and Provincial Building Codes as follows:

3.1.14.2. Metal Roof Deck Assemblies

1) Except as permitted by Sentence (2), a metal roof deck assembly shall meet the conditions of acceptance of CAN/ULC-S126-M, “Standard Method of Test for Fire Spread Under Roof-Deck Assemblies,” if
   a) it supports a combustible material above the deck that could propagate a fire beneath the roof deck assembly, and
   b) the deck is used to comply with the requirements of Sentences 3.2.2.25.(2), 3.2.2.32.(2), 3.2.2.53.(2), 3.2.2.59.(2), 3.2.2.69.(2), and 3.2.2.76.(2) for noncombustible construction.

2) The requirements of Sentence (1) are waived provided
   a) the combustible material above the roof deck is protected by not less than 12.7 mm thick gypsum board, mechanically fastened to a supporting assembly if located beneath the roof deck, or by a thermal barrier conforming to one ofClauses 3.1.5.11.(2)(c) to (e) that is located
      i) on the underside of the combustible material, or
      ii) beneath the roof deck,
   b) the building is sprinklered throughout in accordance with Sentence 3.2.2.18.(3), or
   c) the roof assembly has a fire-resistance rating not less than 45 min.

To summarize:

Sentence (1) Discussion:
Sentence 3.1.14.2.(1) permits the application of foam plastic insulation above a metal roof deck provided the roof assembly has been tested and meets the conditions of acceptance of CAN/ULC-S126-M. PlastiSpan insulation is included as a component in several CAN/ULC-S126-M roof deck assemblies listed with Underwriters’ Laboratories of Canada (ULC).

Sentence (2) Discussion:
Sentence 3.1.14.2.(2), states that the requirement of Sentence 3.1.14.2.(2) are waived if any of the conditions Clause 3.1.14.2.(2)(a), Clause 3.1.14.2.(2)(b) or Clause 3.1.14.2.(2)(c) is met.