



BULLETIN #9
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**NRCA STATEMENT ON POLYISOCYANURATE, POLYURETHANE
AND PHENOLIC FOAM ROOF INSULATIONS**

(Supersedes Bulletin #9, dated July 1981)

The use of polyisocyanurate, polyurethane and phenolic foam insulation products in built-up roof constructions continues to increase. NRCA periodically reviews the performance of these products and strives to keep the roofing industry informed as to the state of the art for the proper installation of these products.

Information obtained from recent field and laboratory tests^{1,2} indicates that there are three major application concerns by the NRCA member roofing contractors with those products presently on the market, as follows:

1. Blistering between the top facer sheet and the built-up roofing membrane.
2. Lack of resistance to compressive loading during the application of the roofing membrane.
3. Facer delamination when the built-up membrane is installed.

The incidences of problems vary between different products, similar products from different manufacturers, and products from individual plants of the same manufacturer. In addition, not all installations demonstrate any of these concerns. However, the reported incidences of problems have increased, indicating the need for NRCA to prepare this bulletin.

In order to minimize potential blister formation between the top facer sheet of insulation and the built-up roofing membrane, minimize localized crushing of the insulation and minimize facer delamination, NRCA recommends the following procedure be followed:

- Over the top surface of polyisocyanurate, polyurethane, or phenolic foam insulation, a thin layer of wood fiber board insulation, perlite board insulation or glass fiber board insulation should be installed, staggering the joints from the layer below. The built-up roofing membrane should then be applied as specified by the designer.

NRCA recognizes that other methods of installation may be satisfactory and is not attempting to prescribe design specifications or installation procedures.

Notes:

1. MRCA-NRCA Research Report on *Application Effects of Hot Asphalt on Roof Insulation*, August 1988.
2. MRCA-NRCA Research Report on *Results of Uplift and Crushing Resistance Tests of Polyisocyanurate and Phenolic Foam Insulations when a Built-Up Roof was Directly Adhered under Simulated Field Conditions*, October 1988.