

TECHNICAL ADVISORY BULLETIN

To: GAF Commercial Sales, Master Select Contractors, Distributors

From: Technical Services Department

Subject: Installations Of BUR & MB Roofing Systems On Metal Decks With Minimal Insulation



Quality You Can Trust...
From North America's
Largest Roofing Manufacturer!™

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What Is The Concern?

Potential for roof splits or lap failures.

- A single layer of low R-value insulation allows for large swings in the metal deck temperature.
- Under deck insulation and/or unconditioned space below the deck can intensify these temperature swings.
- The large temperature swings maximizes the thermal expansion and contraction of metal decks and can place significant stress on the roofing membrane
- The extreme expansion and contraction of the metal deck with minimal insulation protection is often not considered nor properly addressed in the design of the roof system.

What About Expansion Joints?

The design, location, and use of building expansion joints must be considered at the time of original building design and are the responsibility of the architect, engineer and owner.

- As a guideline in normal construction with a reasonable amount of insulation above the deck, GAF recommends an expansion joint every 200 linear feet of building length.
- With minimal R-value insulation above the deck, designers must consider more frequent use of expansion joints or addition of higher R-value insulation to address the steel deck expansion and contraction.

What Is GAF's Position On Issuing Roof Guarantees?

Because we have concerns with long term performance, GAF will no longer issue guarantees on BUR or MB Roofs installed on metal decks with minimal insulation.

- A single layer of fiberboard or perlite insulation on a steel deck **is not acceptable** as a substrate for asphaltic roofing systems that are eligible to receive a GAF roofing system guarantee.

Where under deck batt insulation is installed below the steel deck at least one layer of isocyanurate insulation is required above the steel deck.

- The use of batt insulation under a steel deck **requires the prior approval** of a GAF Field Services or Technical Services Manager before installation of the roof system.

Where Can I Get More Information?

GAF Technical Services can assist you... with these and other questions you may have regarding your new roof installation. GAF Technical Services can be contacted at **800-ROOF-411** (800-766-3411). Also, the GAF website is a great resource for just about any question you may have or for additional information you may require. Please visit: www.gaf.com.