

TECHNICAL ADVISORY BULLETIN



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

To: GAF Commercial Sales, Master Select Contractors, Distributors

From: Technical Services Department

Date: 05/27/2011

Subject: Ponding Water and EnergyCap™ Membranes

No: TAB-C 2011-03

**Does Ponding Water Affect
The Surfacing Of The
EnergyCap™ Factory
Coated Family Of Products?**

Yes, ponding or standing water... can result in premature deterioration of the coating. EnergyCap™ sheets are factory coated membranes... and like field applied coatings, the coating can deteriorate in the presence of ponding water or areas that typically remain wet for long periods of time (i.e. waterways/drainage areas around drains and scuppers or other poorly drained areas that typically remain wet for long periods of time).

Why Roofs Should Drain:

All roof systems... whether they have an EnergyCap™ factory applied coated membrane or field coated membrane should have adequate drainage for the following reasons:

- Standing water can result in deck deflection and possible damage.
- Water on the roof can promote vegetation, fungi and bacterial growth.
- In the event of an opening in the roof membrane, standing water can significantly worsen damage to the roof system, the building itself, and interior contents by providing a reservoir of water to ready to gravitate thru the membrane opening.
- Proper drainage is required by building codes.

**What Are The GAF's
Drainage Requirements For
BUR And Modified Bitumen
Roofs?**

GAF recommends at least $\frac{1}{4}$ " per foot slope... with proper grading to and placement of outlets.

GAF defines "ponding"... as water that does not drain or dissipate from the roof surface within 48 hrs. after precipitation ends. Ponding can also result for other water sources, including improperly piped air conditioning condensate and steam condensate lines.

**How To Obtain Proper
Drainage:**

There are several ways... to achieve proper drainage:

- Provide structural slope in the deck assembly.
- Install a tapered insulation system. For recommendations on tapered roof insulation to provided slope for drainage, contact the GAF Technical Hotline at: 1-800-766-3411.
- Install tapered lightweight insulating concrete.
- Add additional drains.
- Use crickets, saddles and sumped drains.

Repair Recommendations:

To slow down the damaging effects of ponding water...

- Correct drainage.
- The surface must be free of water, ice, snow, dirt and debris prior to coating application.
- Do not apply coating at temperatures below 42°F (5.5°C). Substrate temperatures must be below 140°F (60°C) when applying product.
- Apply TopCoat® FlexSeal sealant at approximately 2 gallons per 100 sq. ft. following GAF application recommendations.
- Allow the TopCoat® FlexSeal sealant to dry. Drying Time (@ 75°F, 50% RH) is approximately 24 hours between layers.
- Apply TopCoat® EnergyCote™ coating at approximately $\frac{1}{2}$ gallon per 100 sq. ft. following GAF application recommendations.

**What About My
Guarantee...**

GAF guarantees... will not cover leaks or damages in areas of a roof that pond water.

Recoating EnergyCap™ sheets is not covered... by GAF guarantees. The factory coated EnergyCap™ sheets, like roof membranes with field applied roof coatings, may need to be recoated as a part of a regular roof maintenance program.

**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.

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