

Cold Storage Roofing Requirements for TPO and PVC

Commercial

Updated: 04/16



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

www.gaf.com



COLD STORAGE Roofing Requirements for TPO and PVC (Commercial)

Guarantee Coverage For TPO and PVC Adhered Installations

Years*	TPO and PVC (New)
20	EverGuard® 60, 70 and 80 mil TPO EverGuard® Fleece-back 60, 70 and 80 mil TPO EverGuard® 60 and 80 mil PVC EverGuard® Fleece-back 60 and 80 mil PVC EverGuard Extreme® TPO and PVC XK available

*Maximum Guarantee Available

The following requirements and restrictions apply:

1. Available for adhered membrane roofing systems only.
2. Available for new and tear-off systems only. Not available for recover systems.
3. A minimum of 2 layers of insulation is required. The top layer of insulation is to be adhered and may be an approved cover board.
4. Standard industry roofing practices must be followed. Building envelope specifications provided by the designer for sealing of all penetrations and edges must be followed.
5. EverGuard® TPO accessories must be used with EverGuard® TPO systems only.
6. EverGuard Extreme® TPO accessories must be used with EverGuard Extreme® TPO systems only.
7. EverGuard® PVC accessories must be used with EverGuard® PVC systems only.
8. Requires inspection after all work is completed.
9. EverGuard® TPO .045 and PVC .050 mil membranes are not eligible for cold storage guarantee coverage.
10. For additional information on cold storage installations, please consult GAF Technical Services.

GAF's guarantee does not cover damage resulting from any third-party products or systems which are attached to or thru GAF's EverGuard® TPO, EverGuard Extreme® TPO or EverGuard® PVC membranes. See guarantee for complete coverage and restrictions.

Note:

GAF defines **cold storage** as a building or portion of a building or structure designed to promote extended shelf life of products or commodities and typically has year-round temperatures **below 50° F**. It is the responsibility of the design professional to specify the appropriate cold storage system.

Extremes in internal temperature/humidity are often associated with cold storage/freezer buildings and food processing plants. What makes these building applications unusual is that the pronounced difference in vapor pressure between the building interior and the exterior can cause a pronounced vapor flow through the roof assembly. This can result in a significant build-up of condensation within the roof assembly, and severe deterioration of both the roof assembly itself and the structural deck.

Relevant design considerations include:

- Attention to vapor-tight seal between roof and side walls/penetrations;
- Utilization of closed-cell foam insulation and stainless steel fasteners to minimize potential for condensation related degradation of roof system;
- Limitation of penetrations through roof deck;
- Avoidance of roof system attachment through any vapor retarder.