

TECHNICAL ADVISORY BULLETIN

To: GAF Commercial Sales, GAF Contractors, GAF Field Services

From: Technical Services Department

Subject: Seam Cleaning Thermoplastic Membranes



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Proper Preparation Is Key...

Proper preparation of the area to be heat-welded is critical... to forming a good, long-lasting seam. Heat-welding uses the thermoplastic nature of the material to melt two pieces of material together, fusing it into a single piece. In order to properly fuse two discreet pieces of material together, the pieces must be clean and dry. If not clean and dry, contaminants will interfere with the weld and, generally, the result is a poor or false weld.

When Do I Need To Clean The Seams Prior To Welding?

- **Satisfactory heat-welding requires...** that the membrane be clean of dirt and contaminants, and free from dew, rain, and other sources of moisture.
- Factory-fresh new membrane should be clean when unwrapped and unrolled on the job site. Typically, the new membrane **will not require** cleaning prior to welding, provided that welding is performed immediately after placement of the membrane. Therefore, any material rolled out and put into place should be welded the **same day**, including welding of any detail work.
- Membrane **will require** cleaning if it has been exposed for a longer period of time (e.g., for more than 12 hours or overnight) or has become dirty due to foot traffic or other contamination. Cleaning methods will depend on the type of contamination present.

What Are The Different Types Of Contamination And Cleaning Procedures?

GAF categorizes membrane contamination into four types...

Light Contamination: Membrane that has been exposed for a few days or less to air-borne debris, foot traffic, or dew or light precipitation can usually be cleaned with a cloth moistened with EverGuard® TPO Seam Cleaner or EverGuard® CleanWeld™ Conditioner (low VOC) for TPO membranes. For PVC membranes, MEK (methyl ethyl ketone) or acetone can be used. Be sure to wait for solvent to flash-off prior to welding.

Dirt-Encrusted Contamination: Membrane that is dirt-encrusted will require the use of a low-residue cleaner such as Formula 409® and a mildly abrasive scrubbing pad to remove the dirt. Rinse area thoroughly with clean water and allow to dry. This must be followed by cleaning with a cloth moistened with EverGuard® TPO Seam Cleaner or EverGuard® CleanWeld™ Conditioner (low VOC) for TPO membranes. For PVC membranes, MEK (methyl ethyl ketone) or acetone can be used. Be sure to wait for solvent to flash-off prior to welding.

Weather or Oxidized Contamination: Membrane that is weathered/oxidized will require the use of a low-residue cleaner such as Formula 409® and a mildly abrasive scrubbing pad to remove the weathered/oxidized top surface layer. This must be followed by cleaning with a cloth moistened with EverGuard® TPO Seam Cleaner or EverGuard® CleanWeld™ Conditioner (low VOC) for TPO membranes. For PVC membranes, MEK (methyl ethyl ketone) or acetone can be used. Be sure to wait for solvent to flash-off prior to welding.

Chemical Based Contamination: Membrane that is contaminated with bonding adhesive, asphalt, flashing cement, grease and oil, and most other contaminants usually cannot be cleaned sufficiently to allow an adequate heat weld to the membrane surface. In these situations, membranes should be removed and replaced.

**Summary of Seam
Cleaning
Recommendations...**

Type of Contamination	Membrane Cleaner	Method	General Cleaning Tips
Light	<ul style="list-style-type: none"> ▪ TPO: EverGuard® TPO Seam Cleaner or EverGuard® CleanWeld™ Conditioner (low VOC) ▪ PVC: MEK or acetone 	<ul style="list-style-type: none"> ▪ Clean with cloth moistened with membrane cleaner. ▪ Allow solvents to flash off. 	<ul style="list-style-type: none"> ▪ Rinse area thoroughly with clean water. ▪ Use white terry cloth; avoid use of industrial cleaning cloths. ▪ Colored cloths can transfer the dye in the cloth to the area to be welded and should not be used. ▪ Do not over-use cloths; dispose of when dirty. ▪ Use scrub brushes sparingly as they can damage the membrane. ▪ Drying time for cleaner increases 3-5 minutes for every 10° F drop in temperature.
Dirt-Encrusted	<ul style="list-style-type: none"> ▪ TPO: EverGuard® TPO Seam Cleaner or EverGuard® CleanWeld™ Conditioner (low VOC) ▪ PVC: MEK or acetone 	<ul style="list-style-type: none"> ▪ Scrub with low-residue cleaner (409®) using a mildly abrasive pad. ▪ Clean with cloth moistened with membrane cleaner. ▪ Allow solvents to flash off. 	
Weather or Oxidized	<ul style="list-style-type: none"> ▪ TPO: EverGuard® TPO Seam Cleaner or EverGuard® CleanWeld™ Conditioner (low VOC) ▪ PVC: MEK or acetone 	<ul style="list-style-type: none"> ▪ Scrub with low-residue cleaner (409®) using a mildly abrasive pad. ▪ Clean with cloth moistened with membrane cleaner. ▪ Allow solvents to flash off. 	
Chemical Based	<ul style="list-style-type: none"> ▪ Not Recommended; consult GAF 	<ul style="list-style-type: none"> ▪ Remove and replace membrane 	

Note: Ambient conditions are a key variable in the time it takes for the cleaner to dry prior to welding.

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 to find the latest information on our products and their installation.

Important: This document supersedes any prior GAF Technical Advisory Bulletins on this topic. Please always check www.gaf.com to make sure you have the most up to date information.