



## SELF-ADHERING MEMBRANE BUCKLES

Soon after self-adhered membranes are installed (whether single-ply or double-ply), some wrinkles may appear in the membrane. This Bulletin will explain the probable cause of these wrinkles, and outline various preventive and corrective measures.

Our Roof-Fast product is constructed on a dimensionally stable reinforcement to ensure the product is strong enough to survive the manufacturing process, and stable enough to withstand the stresses of installation/exposure such that it will not wrinkle, buckle, or distort of its own accord. Unfortunately, the membranes are typically installed on wood decks, which are themselves applied to wood supporting structures. Wood is an excellent building material, but does expand/contract significantly at different moisture levels, depending on lumber type, quality of installation, and building design. Plywood, although more dimensionally stable than lumber, is also susceptible to this movement to a lesser degree. At the time of roofing, the wood deck material is exposed to the elements prior to membrane application. It is possible for the moisture level in the wood deck materials to increase at this time. Wood expands as its moisture level increases.

The membrane is then applied, and the newly protected wood can now dry out, especially if the roof is subjected to some sunny weather. As the deck dries out, it contracts very slightly, and since the overlying membrane cannot contract, random small wrinkles may appear over the surface of the membrane. Often the wrinkles can be seen traversing multiple courses. Also, if the membrane was applied with even the slightest bit of "slack", the wrinkles can be larger. Please note that even though certain self-adhesive membranes may appear to be "unstuck" in the wrinkled areas, this in itself did not cause the membrane to wrinkle/rise. While good membrane adhesion is desirable (always use appropriate primers and fasten the membrane according to installation instructions), the stickiest membranes in the world are no match for the force of shifting decking materials which have contracted. Although wrinkles have been seen on roofs covered with Roof-Fast, this phenomenon has also been noticed on other IKO, as well as other competitive membranes.

The following recommendations can minimize wrinkle development;

1. Ensure the deck is dry before and during roof membrane application.
2. All membranes should be installed according to IKO's application procedures.
3. Ensure the membrane conforms completely to the substrate; there should be no raised/loose areas.
4. Allow the solvents to "flash off" from all primers prior to membrane application. If this is not done, occasionally these solvents can be trapped beneath the membrane, resulting in raised areas (typically round-shaped blisters, but they may also resemble wrinkles).

If your roof has small wrinkles, they may not necessarily detract from the watershedding function of the product. Typically they are an aesthetic concern only. However, if the wrinkles are large enough such that laps at membrane joints may be open, the wrinkles should be slit and repaired with new material.

For additional information on any of IKO's products or application requirements, visit us on the web at [www.iko.com](http://www.iko.com), or contact us in Canada at 1-888-766-2468, or the United States at 1-888-456-7663.