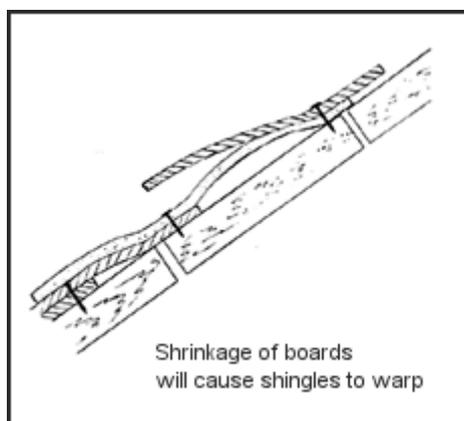


BUCKLING OF ASPHALT SHINGLES

Asphalt shingles occasionally show buckles or ridges along the length of courses up the roof. This buckling is the result of the shingles being distorted due to movement of the roof deck on which they are applied. Asphalt shingles have never been shown to buckle by themselves.

Roof decks which can result in buckling of the overlying shingles are typically those made from dimensional lumber (also known as "board" or "plank" decks). Lumber boards shrink or swell to varying degrees depending on their moisture content. Adjacent boards on the deck, even though securely nailed to the roof rafters, can shrink or swell at different rates. Shingles nailed to lumber decks are usually held in place by two rows of nails, each row often fastened into two separate boards. (This is often the case when the board width exceeds the shingle exposure, eg. 8" boards vs. 5 5/8" shingle exposure.) Differential shrinking/swelling of adjacent roof boards can therefore result in buckling of the overlying shingles.



For this reason, application of asphalt shingles to dimensional lumber decks is not recommended. Rather, exterior grade plywood is recommended for best roof performance.

When re-roofing over lumber decks, install a minimum 9 mm (3/8" nominal) exterior grade plywood base over the boards prior to the new shingle application. Even though the old layer of shingles was not buckled, the boards will be subjected to moisture level changes during the re-roofing process. This may result in dimensional changes, leading to buckling of the new shingle layer; installation of the plywood over the boards will reduce this.

For more information on this subject or other asphalt shingle technical issues, you may contact CASMA by e-mail at casma@casma.ca, or visit our website: www.casma.ca. The information contained in this bulletin is for general education and is not intended to replace advice from a qualified contractor or direction on usage/installation from the manufacturer. Consumers should be aware of the safety hazards associated with work on roofs and, before doing so themselves, should consider following CASMA's advice of using qualified contractors. This bulletin may be reproduced with permission on condition that it be reproduced in whole, unedited, with attribution of copyright to CASMA.