TECHNICAL BULLETIN

CASMA
CANADIAN ASPHALT SHINGLE MANUFACTURERS' ASSOCIATION

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CURLING OF ASPHALT SHINGLES DURING WINTER

Winter curling is a phenomenon affecting asphalt roofing shingles whereby the front edge of the shingle lifts up slightly from the roof deck when cold, then lays flat again during warmer weather.

This phenomenon is especially prevalent during damp winter conditions when frost forms on the top surface of the shingles. This cooling on the top surface of the shingles causes that part of the shingle to contract. At the same time, the underside of the shingle in contact with the deck, receives a certain amount of passive heat from the attic. As a result, the underside of the shingle is slightly warmer relative to the top and the shingle lifts or curls up slightly.

The effect of this phenomenon is noticeable to a greater or lesser degree with all shingles depending on shingle age, attic ventilation, shingle type, roof pitch, humidity, climate, etc. *Winter curling* has existed forever and can rarely be completely eliminated. Although the shingle lifting is visible during cold weather, the shingle's durability and water shedding performance are not affected.

[return to listing]

Canadian Asphalt Shingle Manufacturers' Association