

WIND PROTECTION OF ASPHALT SHINGLE ROOFS

Asphalt shingles, when installed properly, have proven to be very resistant to strong winds. Self-sealing asphalt shingles have a factory applied adhesive that is activated by heat, thus roof temperature is important.

Though most shingle manufacturers warrant their shingles for wind speeds of 100 km/h (60 miles/h) or more, reducing roof damage caused by wind can be accomplished by taking some simple precautions, especially if you are in an area known to have periodic high winds or very dusty conditions.

1. Use proper roofing nails, which offer better fastener-holding strength than staples. Ensure that the nails are long enough to penetrate through the wood deck and are driven flush with the shingle surface. Follow the shingle manufacturer's instructions for the location of the nails, as this is critical to shingle's resistance to uplift and blow-off.
2. For high wind areas, as well as for steep slopes that 15:12 (50°) and greater, the number of nails per shingle should be increased to six nails vs. the usual four.
3. Hand sealing of shingles is recommended when application conditions (such as cold weather, job site dirt/dust on shingle sealant), or roof exposure (open prairie, hilltop, or waterfront) might limit the sealant's effectiveness. Hand sealing is usually done with a 1 inch (25 mm) diameter spot of asphalt plastic cement under each shingle tab (refer to shingle manufacturer's instructions for specific details). Roof areas particularly susceptible to wind damage are the top five courses near the ridge, and rake edge tabs.
4. Ensure decking and roof trusses are sturdy and conform to building code requirements. A strong, stable deck reduces wind-induced vibration which can break down the self-sealing feature of some shingles, especially in colder weather.

Although some of the recommendations above may exceed minimum building code requirements, following any of them will help ensure a more wind-resistant finished roof, avoiding the potential inconvenience and stress of insurance claims, roof repairs, and possible internal building damage/repair.

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.