



# technical bulletin

Asphalt Roofing  
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## ***Recommendations for Application of Asphalt Shingles on Steep Slope and Mansard Construction***

Over the last few years, architectural design trends have resulted in radical departures from normally accepted roofing concepts. Roof slopes, especially in mansard design, have been increased to the point where special application methods are necessary. Unfortunately, excessive slopes reduce the effectiveness of factory-applied self-sealing adhesives, especially in colder or shaded areas,

In some instances, problems have occurred when asphalt shingles were applied by normal application methods on very steep slope systems. These problems were not a result of any weakness or defect in the product, but rather of normal installation limitations.

The maximum slope considered suitable for normal shingle application is 45 degrees (or 12" per foot). If a roof slope exceeds this limitation, the shingles should be applied by the following recommended method, complying with ASTM D4586:

- ① Secure the shingle to the roof deck with fasteners as recommended by the roofing manufacturer. These recommendations may call for up to six fasteners per shingle.
- ② In spots equivalent to the size of a quarter, a quick setting, asphalt adhesive cement must be applied under all shingle tabs immediately upon installation. For 'three-tab' shingles, two spots of cement are necessary under each tab. For 'no cut-out' shingles, four spots of cement are required.
- ③ Provide a properly ventilated flow-through air space to prevent the entrapment of moisture-laden air behind the sheathing.

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