



RESIDENTIAL INFORMATION BULLETIN

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VALLEYS

Many roofs constructed in North America have valleys incorporated into their design, which are defined as “the internal angle formed by two sloping roof planes” (ARMA Residential Roofing Manual). There are two ways in which valleys can be installed; open or closed. In open valleys, the shingles are trimmed back from the valley area, and a metal or rolled roofing material used to “line” the valley is left exposed, or “open” to the elements. In closed valleys (often referred to as “closed cut” or “woven”), the shingles themselves are overlapped or woven together during application, providing the valley covering. More detailed installation instructions for valleys can be found on IKO’s application instructions, printed on each shingle wrapper, and also available on our web site at www.iko.com.

Shingles at roof valleys, regardless of how the valleys are installed, typically deteriorate and weather more rapidly than the surrounding roof areas. This is due to a variety of reasons, including;

- a) Valleys, due to simple geometric rules, have a lower slope than the adjoining roof planes. For example, on a 4:12 roof, the slope of the valley itself is approximately 2.8:12. It is widely known that lower sloped roofs do not last as long as steeper roofs, due partially to incidence of angle to solar radiation and rain.
- b) As well as the lower slope in the valley, there is also the cumulative effect of extra water flow from adjoining roof areas, which accelerates the shingle deterioration by erosion.
- c) Often, ice, snow, and debris from overhanging trees collects in the valleys, further retarding drainage, which in turn results in shingle deterioration.

In addition, asphalt shingles can deteriorate rapidly when water is allowed to pour directly from a downspout from an upper roof plane to a roof plane situated directly below.

The typical life expectancy and limited warranty period for asphalt shingles has increased in recent years. For this reason, IKO has recommended for the last several years that **open metal valleys should be used in all our shingle installations** for best roof performance. Metal valley linings are more resistant to the deterioration effects noted above, preventing the valley from wearing out prematurely. In cases where the valley shingles appear weathered, this does not necessarily indicate the shingles are defective – it is likely just evidence of the increased weathering factors in that roof area. Often the roof will still perform its intended watershedding function, assuming the valley has been properly constructed in terms of underlayment, flashing membrane, etc. For this reason, IKO does not warrant shingles in the valley area in a closed or woven valley.

For additional information on any of IKO’s products or application requirements, visit us on the web at www.iko.com, or contact us in Canada at 1-888-766-2468, or the United States at 1-888-456-7663.