

HAIL DAMAGE Natural Slate Roof

Hail Damages to Roof Systems #6 Natural Slate Roof Systems

Hail is a natural destructive force that can cause severe damages to residential, commercial and industrial roof systems. Analysis and confirmation of "true" hail damages must be performed by personnel with both technical training and extensive field training expertise of the natural and physical natures of both hailstones and roof systems.

Hail Damages to Natural Slate Roofing

Large damaging hailstones can have devastating affects to natural slate roofing.

Even very hard S-1 Grade slates (as shown below) can be fractured, punctured and broken by large dense hailstones.

If dense hailstones larger than 1.75" in diameter are recorded or suspected there could be damages to s-1 grade slates.



Compression marks in S-2 Slate



Compression mark in S-2 Slate



Large hail can have even greater effects on older S-1 or softer S-2 Grade slates. Punctures and fractures can still occur, but also compression marks of pulverized slate material can have detrimental affects to the function, life and performance of the natural slate materials. The softened compression marks can absorb moisture and be exacerbated during freeze/thaw cycles.

ompression/puncture mark in S-2 Slate



The s-2 Grade Pennsylvania slates which cover this roof slope have been pelted with hailstones leaving both impact punctures and compression marks. There have been newer S-1 Grade slates installed during maintenance and repairs.



The older, softer S-2 Grade slates show considerably more impact defects than the newer S-2 Grade and the S-1 Grade slates



- As with any hail damage analysis and inspection, other exposed materials, such as the soft copper valleys in this case, should be examined for collateral evidence of hail impacts.
- While old copper valleys and older soft metal materials can memorialize even minor past hail events through the life of the roof or flashing systems, large sharp peens can memorialize a singular "damaging" hail event which could have also likely caused clear hail damages to the slates.
- Size and frequency of the larger hail is memorialized in the soft copper.

