



Hail Damages to Roof Systems #3 Modified Bitumen 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.

- Modified bitumen roof systems are generally tough and durable, but very large and dense hailstones can cause damages to these roof systems.
- Large and dense hailstones can pulverize surface granules, cause impact compressions, fracture reinforcing mats and delaminate membrane base plies in some cases.
- Typically hailstones must generally be very large - 2.25" or greater in diameter or larger to have detrimental effects to typical modified bitumen roof systems roof systems.



Frequent and very large hailstones impact marks 2.25" or greater in diameter can be seen in these photos.



Very Large hailstones 2.25" or greater in diameter can cause damages to some modified bitumen roof systems.



Huge hailstones nearly 5" in diameter caused surface depressions and scuffs. However, test-cuts revealed NO overt sub-roof damages on the test sample.



Concentric compression rings were identified to the surface of this smooth surfaced modified bitumen system caused by very large hailstones 2.25" or greater in diameter. However, the underside of the membrane showed NO damages.

Large and dense hailstones can pulverize surface granules, cause impact compressions, fracture reinforcing mats and delaminate membrane base plies in some cases.

However, the very large 2.25" or greater in diameter or larger hailstones which impacted this roof had little or NO detrimental effects to the sub-roof, base-plies or insulation layer in this roof assembly.



No overt damages to underside of mod-bit or base sheet.

A slight impact compression dimple left in the Perlite insulation.