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TECHNICAL BULLETINS
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TOPIC: Inspecting Hail Damaged Roofs

Inspecting hail-damaged roofs begins with you as the inspector keeping track of weather patterns and hail storms when they occur. Keep in mind also the direction in which a storm passes through. The direction a storm passes will typically leave its traces on that particular side of the roof depending on the severity of the storm.

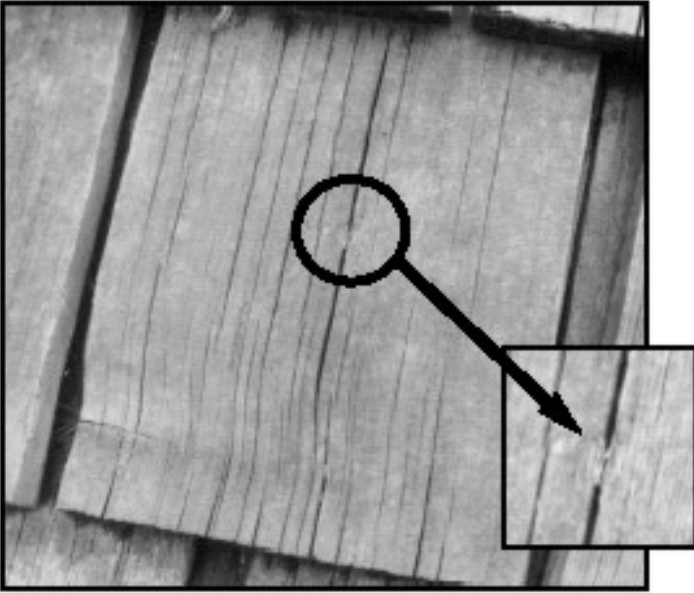
Controversy between roofers and Insurance adjusters

Many roofers see hailstorms as an opportunity for some roof replacement work. They begin canvassing the neighborhoods looking for homes that show hail impacts, and offer to do a free damage assessment and allow the roofers to do the inspections. There have been documented cases where roofers have damaged the roof to create damage that appears to be hail related. Whether it is using the corner of a tape measure and hitting a wood shake to cause it to split with an impact point, hitting an asphalt shingle to create a bruise, or using a coin to make a bruise look worse than it really is, the roofer can create damage to show the homeowner. So starts the process of filing a claim.

Some insurance adjusters see a hailstorm as a headache in the making. If one homeowner in the neighborhood gets a new roof, all homeowners in the neighborhood think they deserve a new roof. There are definitely some justified cases where the damage absolutely warrants a new roof, other cases are not as clear. When the adjuster and the homeowner disagree on the extent of the damage, the next appropriate course of action is to hire an expert, and that could be you as an inspector.

According to Webster's New World Dictionary, the term "expert" is a term reserved for an individual who is "very skillful; having much training and knowledge in some special field." It takes knowledge and training to be a hail damage expert, so it is important to be aware of an expert's experience. When experts look at hail damage they typically look for functional damage, the loss of water shedding ability or the loss of functional life. Hail damage to wood shake/shingles is characterized by a split in the wood associated with a fresh impact on the wood, or a puncture through the wood. The splits differ from normal and expected weathering splits in that they are a different color inside than weathering splits. Weathering splits are splits in the shingles that occur as the wood ages due to exposure, moisture, etc., and their color is typically the gray dull wood look. Hail damage splits are orange inside due to the fact that the wood inside has not been exposed to the weather until the hailstone impact. Typically with a split caused by the hail impact point will be along the line of the split if not at the beginning of it. Another type of split that is common to this type of material is caused by foot traffic. The foot traffic split will appear the same as a hail caused split having the same orange color inside, however there will be no associated impact point, just a shoe print.

Punctures through the wood are usually easy to distinguish by looking for the orange color and rough edges around the hole. One can ascertain that this is a result of hail and not typical deterioration of the wood. The more orange the color of the wood the newer the split/puncture is and typically it will be from the most recent hailstorm.



This photo displays a typically mistaken for hail damage. It's actually a weathered split. To determine if it is hail or weathering, the shingle needs to be hand manipulated to see if the split disappears. If it disappears, hail has most likely caused the damage. If not, then the damage is from weathering.

Hail damage to asphalt shingles is more difficult to differentiate. With asphalt shingles the hail will cause a soft spot or a bruise that can be found when pressure is applied to the suspect area with a finger. Typically hail impact will loosen a small amount of granules that make up the top surface of the shingle, this is a good spot to look for a bruise. Once a bruise is found, if possible look on the backside of the shingle for fracture lines that indeed verify an impact. In some cases the impact on an asphalt shingle will cause enough damage to expose the fibers that make up the felt mat of the shingle. For the size of the hailstone look at the size of the impact mark. The size of the hailstone will be approximately twice the size of the impact mark that is found. Roof vents are another area that is often a point of contention; these vents are made out of aluminum or light gauge steel. Being made out of metal, most damage to the vents will be cosmetic damage and not necessarily functional damage. To determine the age of impact to the vents, look at the impact point and see if there is any oxidation or rusting of the material. When a hailstone impacts the metal, some of the coating on the metal will be removed which will allow for the metal to rust or oxidize. If there is rust present, the impact is old and probably not from a recent storm.

There is a wide range of variables to consider when inspecting potential hail damaged roofs. This information is just a sampling of what to look for when it comes to residential roof damage. When in doubt, it is best to contact a local expert for professional advice to distinguish if hail damage is indeed the result.

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This technical bulletin has been drafted to be general in nature and not technically exhaustive.