



# Hail No: Three Steps to Prepare for Storm Damage

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Roofing systems aid in protecting our work environment from the everyday struggles of cold and heat. They are the shields that keep our employees safe and our business operational when Mother Nature sends her fury. Roofs are arguably subject to more adverse conditions — especially hail — than any other part of your building.

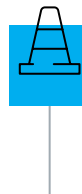
### *What is hail?*

Hail is precipitation in the form of small balls or lumps usually consisting of concentric layers of clear ice and compact snow.



4,436

HAIL EVENTS  
IN 2022 COMPARED  
TO 3,762 IN 2021

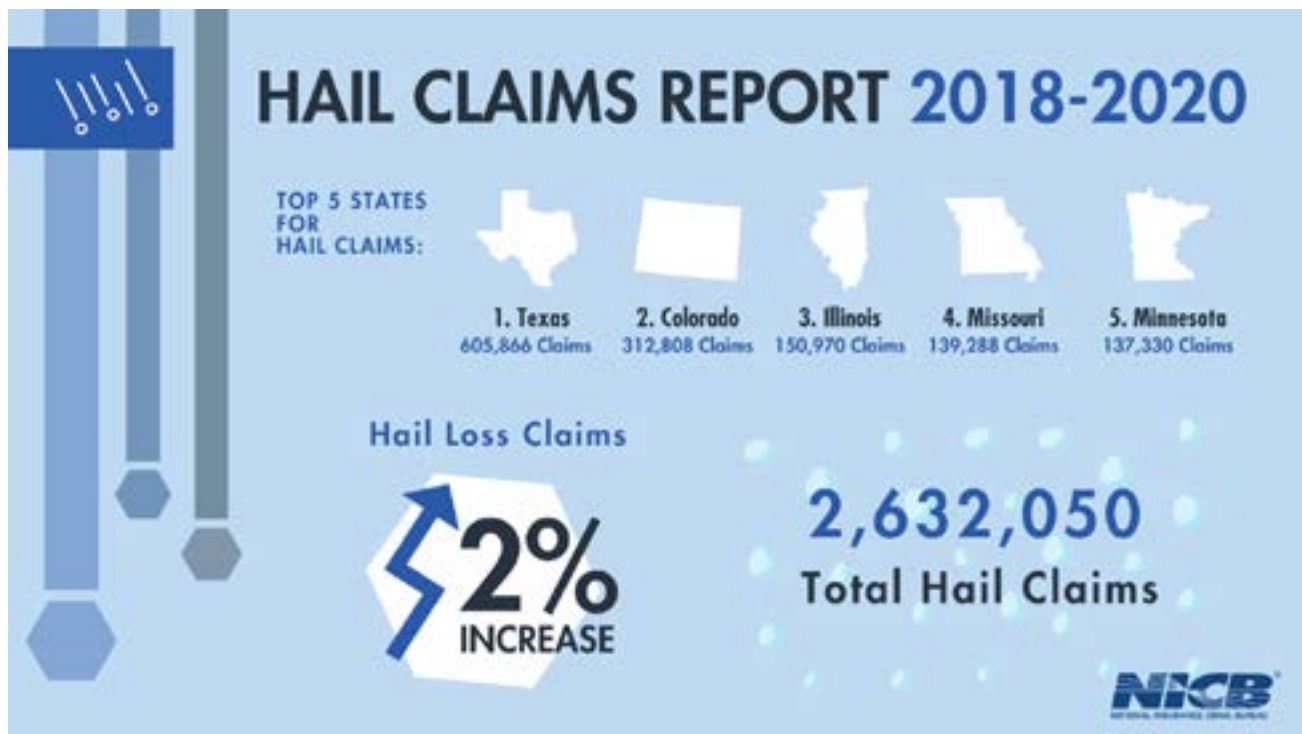


6.2 MILLION

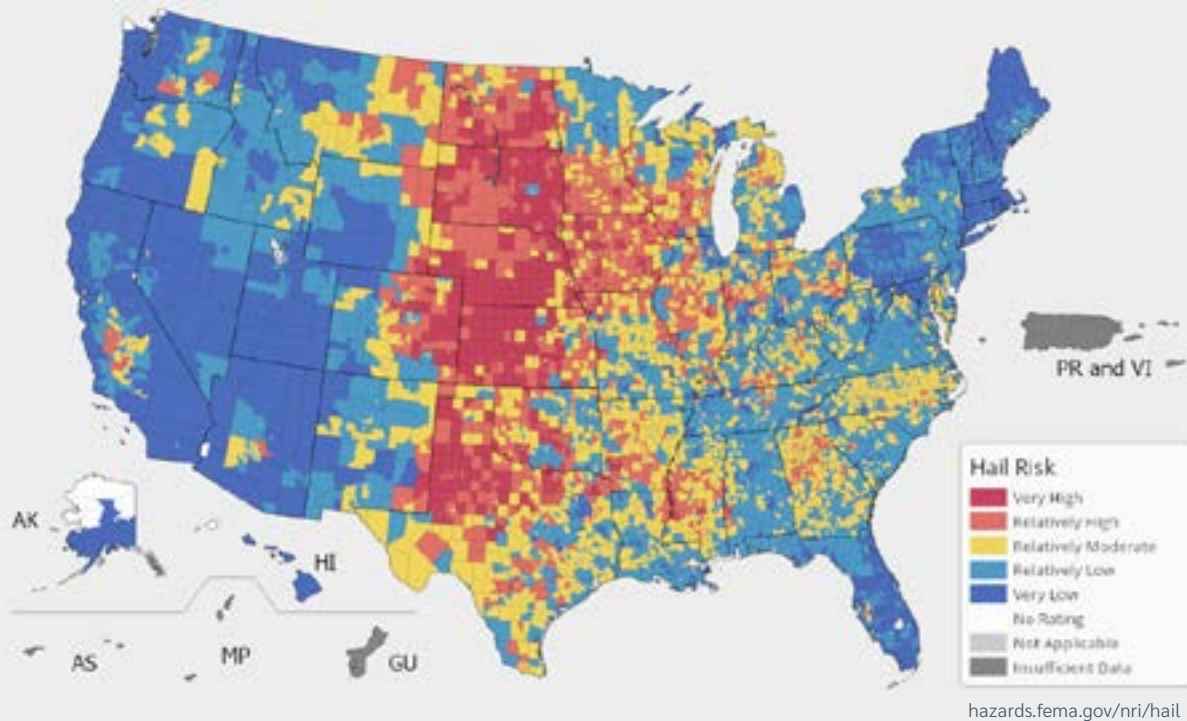
PROPERTIES  
WERE AFFECTED  
BY HAIL

According to a March 2021 NICB Hail Report, from 2018 through 2020, hail claims increased 2% from 832,377 to 849,033 and hail QC (questionable claims) submissions increased 34% from 1,462 to 1,958. From 2018 to 2020, hail claims tended to occur most often in the late spring to early summer months (April-June). Conversely, both hail claims and QCs tended to occur the least often in the winter months (November-February)

ESTIMATED U.S. PROPERTIES AFFECTED BY HAIL, 2013-2017 (IN MILLIONS)



[miiia.org/catastrophes\\_and\\_statistics/hail.asp](https://miiia.org/catastrophes_and_statistics/hail.asp)



## *How to reduce the impact to your building*

### 1. Know your risk.

Check the National Severe Storms Laboratory to see if your area is prone to hail greater than 3/4-inch in diameter. It is also important to know your applicable hail deductible as it can be different than your all other perils deductible.

### 2. Consider a roof with a hail resistant rating.

When replacement is needed, every business should consider upgrading their roof to a system with a hail resistance rating if they are in an area with a history of hail events. Work with your designers and contractors to understand your options and the risks involved. Approved roof assemblies will aid in protecting your roof and business from excessive hail damage. Some examples include a concrete paver ballasted roof, or a slag or gravel surfacing. Roof types more susceptible to hail damage include roof coverings with blisters or cracks, light metal roofs, and smooth coverings such as single-ply and built-up roofs. Unfortunately, no roof type is 100% hail-proof. Consider FM Global's Data Sheet 1-34, Hail Damage, for guidance on construction qualities to minimize potential loss.


FM Global has developed Standard 4473, Specification Test Standard for Impact Resistance Testing of Rigid Roofing Materials by Impacting with Freezer Ice Balls. The UL 2218 classification set a standard for impact-resistant roofing whereby materials were rated on their resistance to impacts with steel balls simulating 90 mph hailstones of various sizes. Classifications for impact resistance are expressed as Class 1, 2, 3 or 4, which relate to a roof covering's ability to withstand impact. Impact-resistant roofing materials that are rated Class 4 provide the best resistance to hail damage.

### 3. Implement a good roof maintenance plan.

This can extend the life of your roof and roof-mounted equipment. Be sure to include the following in the plan:

- Repair all blisters or cracks in roof coverings immediately.
- Make sure any ballasted roof coverings are level and have no bare spots.
- Keep drains, downspouts and gutters clean.
- Make sure skylights are protected or install skylights that have impact ratings.
- Choose equipment that can survive hail impact or protect any roof-mounted equipment with guards or shields.

Unfortunately, last-minute action plans are not usually possible before hail storms, meaning prevention plans are key in keeping your facility safe. This means having roofs with an impact resistance rating, protecting HVAC and roof-mounted equipment, and implementing proper maintenance plans.



Owners should consider working with designers to specify an impact-resistant roof covering according to UL Test Standard 2218 or FM Approval Standard 4473. Consideration should also be given to guttering, flashings and roof-mounted equipment.

### *References*

[http://www.rmia.org/catastrophes\\_and\\_statistics/hail.asp](http://www.rmia.org/catastrophes_and_statistics/hail.asp)

<https://www.verisk.com/insurance/visualize/how-the-hail-hazard-is-affecting-property-insurance/>

<https://www.iii.org/fact-statistic/facts-statistics-hail>



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