

Why Very Severe Hail Should Matter to You

Your roof is your first line of defense against severe weather, especially Very Severe Hail (VSH). In 2017, a single hailstorm battered the city of Denver with baseball- and tennis-ball-sized hailstones, resulting in \$2.3 billion in losses—Colorado’s costliest natural disaster on record. Choosing the right roof system could be the difference between shutting your business down or weathering the storm.

What Are the Types of Hail Classifications?

Hail size is commonly estimated by comparing the size of the hailstone to a known object that ranges from the size of a pea (1/4 inch in diameter) up to the size of a grapefruit (4-1/2 inches in diameter). However, FM Global, one of the world’s largest property insurers, classifies hail into three sizes:



Where Are FM-Designated Hail Zones in the U.S.?

FM Global has designated hail zones in the U.S. based on the type of hailstones most familiar to the area.



FM Global Moderate Hail Zone

Areas in which the hail size does not exceed 1.75 inches (44 mm) for the 15-year mean recurrence interval (MRI)

FM Global Severe Hail Zone

Areas in which the hail size exceeds 1.75 inches (44 mm) but does not exceed 2 inches (51 mm) for the 15-year mean recurrence interval (MRI)

FM Global Very Severe Hail Zone

Areas in which the hail size exceeds 2 inches (51 mm) for the 15-year mean recurrence interval (MRI)

WHY VERY SEVERE HAIL SHOULD MATTER TO YOU

What Types of Damage Can Hail Cause?

History has shown that hail can be extremely destructive, especially stones that are 2 inches or larger. Hail can pummel glass, plastic, siding and metal, as well as just about any type of roofing. Hail damage to roof systems can include:



- Dents
- Cracking
- Cratering (a circular spiderwebbing of microfractures)
- Mineral loss on modified bitumen sheets (removing the primary UV inhibitor)
- Compound delamination, exposing membrane reinforcement

What Can Be Done to Protect a Building?

Protecting a building begins with proper roof system design. In FM Global's VSH Zone, many roofing projects will require increased design parameters. You need to consider:

- Type of system being used
- Type of membrane being used
- Component products being used
- Application of assembly layers

While hail is a big concern in FM Global's VSH Zones, you should not discount other important performance attributes and roof system design requirements, including:

- Weathering performance
- Uplift performance
- UV resistance
- Fire resistance

A resilient roof system designed for hail performance is highly recommended as a measure to prevent losses where significant hail events occur regularly. Having a resistant building envelope can help you withstand disruptions, fortify against breaches and endure extreme conditions.

How Do I Choose the Right Membrane?

While FM Global's hail standard and zone map might be somewhat new, FiberTite's track record for outstanding performance in the face of severe events is not. As the only vinyl system to achieve FM Global Approval for VSH, the difference is in our proven fabric, formula and history of performance.

Learn more about the [FiberTite](https://www.fibertite.com/keemembranes) difference at [FiberTite.com/keemembranes](https://www.fibertite.com/keemembranes).