

How Much Does Snow Weigh?

For those of you that are wondering "When should I shovel the snow off my roof?" Here is a quick rule of thumb to help you if you are concerned.

As a rule of thumb, **snow weighs approximately 20 pounds per cubic foot**, or 1.25 pounds per inch of depth. Depending on moisture content, snow can weigh from 1 pound per cubic foot to over 21 pounds per cubic foot.

Calculation: $S \times 1.25 = P$ where:

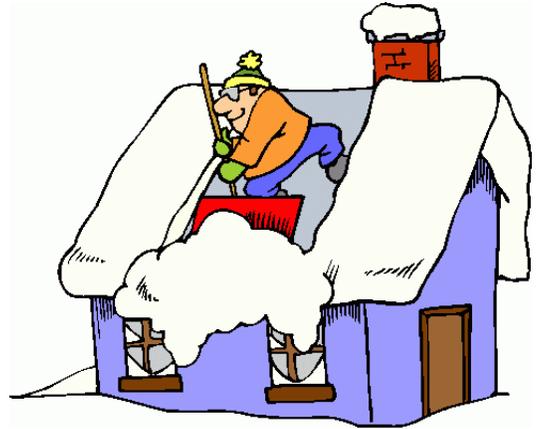
S = Inches of snow on the roof (depth)

1.25 = Weight of 1 sq ft of snow for each 1-inch of depth

P = Pounds per square foot (lbs/sq ft)

Example: If the snow on my roof is 20-inches deep, what would that equate to?

20-inch roof snow depth \times 1.25 lbs/sq ft = 25 lbs per sq ft of roof snow load



NOTE: Any ice build-up on the roof would need to be added to this formula. **Add 5.2 lbs for each 1-inch of ice depth.**

Notes:

1. Structures constructed in McCall with building permits are designed for 120 lbs/sq ft minimum roof snow load. Older roofs may be of concern and may not meet this minimum roof snow load.
2. Until recently, manufactured homes were designed for a roof snow load of 30 lbs/sq ft. Look at the certification label (a metal label affixed to the manufactured home) to verify your design roof snow load.
3. Flat roofs are more of a concern (Less than 3/12 pitch). Flatter roof pitches tend to hold more snow moisture.
4. If we receive excessive rainfall, the weight of the roof snow can increase rapidly.
5. If your structure is in question, it is best to consult an Idaho licensed engineer.

Please be aware of the potential dangers of shoveling or raking snow from a roof. Besides the potential damage to the roofing materials and structure, there are such factors as a person sliding off the roof, falling off a ladder, overexerting themselves, or injury from snow sliding on top of them.

In summary, the City of McCall does not make recommendations on when to remove snow from roofs. It is up to the individual property owner to consider the benefits and dangers of snow removal and decide their own course of actions.