



PONDING WATER | MARCH 2023

In like a lion.

For most of us in BC, March brings better weather and melting snow. The thousands of drivers in and around the Vancouver area are happy to see the snow leaving the streets and roads needed for their daily commute. Building owners are also happy to see the snow disappearing as snow loads on their facilities could pose risks depending on the condition of the roofing system. As well, frozen drains and piles of snow can slow down or even prevent water from leaving the roof.

Did you know? Ponding water poses the greatest risk to a roofing membrane, since it not only shortens its service life, but can lead to more serious life safety concerns. The big concern with ponding water is the increase of the load on roof decks, which could compromise the structural integrity of square foot. When loads and deflections exceed the designed conditions, this can lead to a roof collapse.

WATER DEPTH (INCHES)	WEIGHT (LB./SQ. FT.)	WEIGHT PER SQUARE (LB./100 SQ. FT.)	EQUIVALENT
1	5.2	520	The average weight of a tiger.
2	10.4	1,040	The average weight of a horse.
3	15.6	1,560	The average weight of a cow.

If you live in a cold weather climate, it is also important to understand the water content of snow. This may range from 3% for light/dry snow to 33% for a heavy/wet snow, and nearly 100% for ice. Let's consider snow with an average water content (18%), and 5.2 lbs. per square foot.

Ponding Water – cont.

AVERAGE SNOW DEPTH (INCHES)	WEIGHT (LB/ SQ. FT.)	WEIGHT PER SQUARE (LB./100 SQ. FT.)	EQUIVALENT
12	11	1,100	The average weight of a Polaris ATV.
24	22	2,200	The average weight of a 4 door sedan.
36	34	3,400	The average weight of a Cessna aircraft

Ignoring standing water on your roof could result in a structural roof collapse. Brought on by heavy rains and/or ponding water, in some cases, has caused fatalities. Over time, ponding water will lead to faster deterioration of your roof membrane (and may even void the manufacturer's warranty). Once your waterproofing layer fails to prevent water ingress, water can enter the building to invade insulation and may result in mold or other interior water issues.

With well-trained roofing technicians regularly performing inspections, housekeeping and maintenance, problems are uncovered early and can be corrected to prevent costly emergency repairs. Having an asset management plan that includes budgeted scheduled inspection and maintenance extends the service life of the roof, reduces downtime, and saves money. Keeping good roofs good is beneficial to your commercial portfolio.

Article by Tremco Roofing and Building Maintenance.

Find out more here: [Tremco Roofing and Building Maintenance Safety Solutions](#)

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