

BENEFITS OF COOL ROOF COATINGS | DEC. 2023

Cool roof coatings have been around for several decades and help reduce roof surface temperatures by as much as 10°C/50°F by reflecting the sun's rays, as well as the added benefit of helping to lower energy bills due to reduced usage of air conditioning systems. Traditional dark roofs absorb sunlight, heating the building and surrounding air.



When used in larger metropolitan areas, the use of cool roof coatings helps lower urban air temperatures by reducing the amount of heat transferred from the roof to the air, minimizing what is called the 'urban heat island' effect. This means that in more urban areas where buildings are clustered together and do not use cool roof systems, the air temperature can be much higher when compared to rural air temperatures. This hot air generated by multiple buildings radiates heat into the atmosphere and contributes to global warming.

“During the summer, Metro Vancouver is like a bad microwave. Not everything heats up evenly. The land in more developed areas such as downtown Vancouver or near SkyTrain stations in Richmond, Burnaby and Surrey is significantly hotter than in more suburban areas like Langley or Maple Ridge — by up to 17 C in some cases!”

– Source: [CBC Vancouver's Downtown Eastside can get dangerously hot; the answer is more trees | CBC News](#)

The increased use of cool roof coating systems in urban areas helps reduce the surrounding air temperatures (in addition to the benefit of reduced interior temperatures and utility savings). Although white is the most popular cool roof colour option for most roofing systems, cool-coloured roofs can also provide similar benefits. While a white roof may reflect up to 80% of sunlight, a lighter green cool roof may reflect up to 30% of sunlight while maintaining the aesthetics of, for example, a metal roof restoration job on a school building. Cool roof coatings offer numerous, including cost savings for the building owner, the versatility of available coating technologies, and colour options. They should always be considered for any roofing project.

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