

How construction companies can reduce cold weather risks to projects

South Africa's winter months present a myriad of challenges for the construction industry, directly impacting the efficiency of construction workers, increasing the potential for project delays, and creating logistical hurdles and numerous health and safety hazards.



Roelof van den Berg, CEO of the Gap Infrastructure Corporation

“As an industry, we are acutely aware of the problems that the cold weather brings, and each year we need to prepare and proactively address issues to ensure we don’t go over budget, experience any substantial delays, or place our workers in danger,” explains Roelof van den Berg, CEO of the Gap Infrastructure Corporation.

“Navigating the cold season in South Africa’s construction industry requires a keen understanding of its inherent challenges, from extended project timelines to safety concerns and other project disruptions which may lead to substantial financial losses.”

Effects of cold weather on construction projects

Van den Berg notes that while South Africa may not often experience freezing temperatures, colder weather can still slow down various aspects of the construction process. For instance, concrete takes longer to set in lower temperatures, adhesives may not bond as well, and certain types of paint may not apply or dry properly. This can cause delays as work either needs to be redone or postponed until conditions improve.

Construction equipment and tools can also be affected. Lubricants can thicken; batteries can drain faster, and the risk of equipment failure can increase, leading to potential delays and interruptions.

Additional time may need to be allocated for site preparation and maintenance, such as clearing frost in the mornings or dealing with potential flooding from rain. Cold weather can also create slippery conditions, which may require additional safety measures to prevent accidents.

“Worryingly, we may also see a considerable drop in worker productivity if the effects of extreme cold on the jobsite are not planned for and correctly counteracted. The cold can lead to discomfort, fatigue, and a sharp reduction in concentration, all of which can slow down the pace of work. More frequent breaks may be needed for workers to warm up, and tasks may take longer to complete due to reduced dexterity from wearing thicker clothing,” he says.

Lastly, the winter period often has less daylight hours, reducing the amount of time in which work can be safely carried out – particularly for tasks that require good visibility.

It's essential for construction companies to plan and account for these potential delays in their project timelines during colder seasons to ensure smooth operations and timely delivery of projects.



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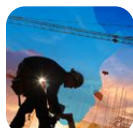
Steps for companies to reduce cold weather risks

To mitigate the impact of colder weather on productivity and ensure timely project completion, industry leaders must proactively adapt their strategies to ensure ongoing productivity, safety, and operational efficiency.

For example, to counter the effects of cold weather on construction materials, companies can consider using certain substance alternatives that perform better in lower temperatures. It is also best practice to store adhesives, primers, and coatings at around room temperature before application, and to restore them to that temperature if they solidify during outside use.

Regular maintenance checks and using winter-grade lubricants and batteries can help to keep equipment running smoothly in the cold. Employing block heaters on diesel engines can also be beneficial in ensuring that vehicles start properly on exceptionally cold mornings.

Further employing outdoor heating mats on the construction site at key working points can help to quickly clear frost in the morning. Additionally, good drainage systems are essential to preventing flooding from rain. To deal with slippery conditions, applying grit or sand to frosted or wet areas can provide extra traction and reduce the risk of accidents.



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Special care should also be placed on enhancing worker comfort on the jobsite. Providing heated shelters for breaks, along with warm drinks, can help to keep the workforce comfortable and maintain productivity. Proper winter clothing, including thermal gloves that allow for normal dexterity, can also help workers stay warm without hampering their ability to work effectively.

To maximise daylight hours, project planning needs to prioritise outside tasks during daylight, while indoor or well-lit tasks can be saved for early mornings or late afternoons. In certain situations, the use of additional lighting may be required to ensure the safety and quality of work at or around dusk, which often occurs earlier on winter days.

“The colder season can pose significant challenges to the construction industry in South Africa, and even though we don’t often experience freezing temperatures, it’s still important to be mindful of the change,” says Van den Berg.

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