

## Cool ideas to manage risk

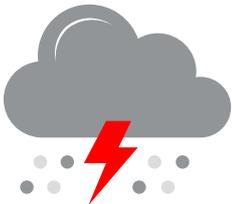
While we're here to pay to claims if the worst happens, we're all about trying to keep you and your property safe and secure in the first place.

When it comes to safety and security risk, coolstores have a set of unique risks to consider.

Coolstores are typically constructed of sandwich panels which can have a combustible inner core. This means that a fire could be large, difficult to put out, and will often result in a total loss of the building and contents.



## Weather watch outs



While you can't control wild weather, you can reduce the risks that come with it.

### Best practice

- Be aware of what weather or flood events are likely to affect your building or business. This can help you plan what needs to be done.
- Keep trees and shrubbery well-trimmed, and remove diseased or damaged limbs. Ask a professional arborist to assess and strategically remove branches to allow wind to blow through the trees.
- Protect water and other pipes from freezing using insulation, or install heat tape.

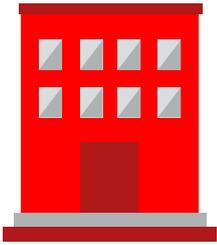
- Remove snow and hail from gutters as soon as it's safe to do so. This will reduce the possibility of subsequent rain overflowing gutters.

### Must haves

- ✓ Ensure the building is well maintained, that walls and roof are watertight. Make sure doors and windows are close fitting.
- ✓ Make sure gutters and down pipes are not blocked by leaves or rubbish. Check before the winter season, or more frequently if needed.
- ✓ Inspect channel drains, yard storm water outlets and sumps and make sure they are all free-flowing and that curb side gutters are not blocked by leaves and rubbish.

## Keeping structures safe

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The whole building should be in good condition.

### Best practice

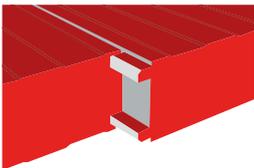
- Where panels are replaced or extensions constructed, for example, any new panels should also be fire resistant. Our team can talk you through it.

### Must haves

- ✓ Ensure doors, windows, and their locks latches and hinges are in good working order.
- ✓ Secure roller doors after hours. If motorised, make sure the electric open/close switch is locked. And for manual doors, lock the chain to the building or door frame. Additional security can be provided by padlocking the door to floor mounted eye bolts.
- ✓ Make sure coolstores are constructed with a fire-resistant sandwich panel with a Factory Mutual Class 1 rating.

## Protecting panels and insulation

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Some sandwich panels need extra care as they burn well once ignited.

### Must haves

- ✓ Coolstores are usually made with sandwich panels that have a combustible inner core, which can lead to a large fire very quickly once ignited.
- ✓ Minimise the risk by regularly checking the condition of the panels and ensuring that the inner core is never exposed. Repair any damage or cover exposed core as soon as possible.
- ✓ Don't make holes through the sandwich panels with any tools that generate heat. If you do need to penetrate the sheet use cold methods only like hand tools.
- ✓ Check any penetrations are flashed with non-combustible flashing to protect the core from heat and ignition sources such as lights, flues, electrical switchboards, battery chargers etc.
- ✓ Cover exposed polyurethane with a thermal barrier, like intumescent paint or non-combustible cladding.

## Vehicle impacts

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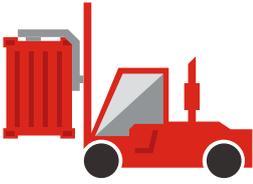
Reducing the chance of vehicle impacts.

### Must haves

- ✓ Protect vulnerable areas of the building – for example loading docks, plant, transformers and parking areas with sturdy bollards.
- ✓ Provide maximum height signage to make sure there are no collisions with canopies and overhangs.

## Forkhoists and goods-handling equipment

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Good practice for goods-handling.

### Must haves

- ✓ Make sure anyone operating forklifts or goods-handling equipment is properly trained with relevant licenses.
- ✓ Provide maximum height signage to make sure there are no collisions with canopies and overhangs.

- ✓ Store spare LPG fuel tank cylinders upright, and chained to stop them falling over. Store them in a place they're protected from any impact.

## Keeping it secure

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Keep your goods safe, and intruders out.

### Best practice

- Set up CCTV both inside and out – think high definition, motion sensing and infrared, to for clear images.

### Must haves

- ✓ Use a close shackle or protected padlock to secure gates so it's hard to tamper with and don't leave it unlocked on the gate.

- ✓ Check your security measures are robust and reviewed regularly – break ins and thefts from coolstores are not unusual.
- ✓ Keep all outside areas well-lit, especially in an isolated location.
- ✓ Get a monitored intruder alarm system with security patrol response. Your alarms should be maintained professionally and checked each year. Random security patrols are also helpful.

## Putting out fire risk

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Early fire detection is important.

### Best practice

- Investigate an automatic sprinkler system designed to NZS4541 – these both fight a fire and also send an alarm to the Fire Brigade. They are the best form of fire protection you can have.
- Make sure you've got enough water available for sprinklers if you're far from a reticulated water supply and so the Fire Brigade can put out any fires. Water tanks, bores, ponds and rivers can play an important role here. See the New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZPAS 4509).
- Ensure any firefighting water supply from tanks are no closer than 6m and no further than 90m away from the building.
- Check maximum stacking heights if you do have a sprinkler system as stored goods can have a detrimental effect on the efficiency of the sprinklers.

### Must haves

- ✓ Make sure you have some fire detection installed even if you don't have sprinklers. Detector units should be placed throughout the building and protected and monitored by the Fire Brigade or a security team.
- ✓ Install heat or smoke detectors at the very least, and make sure these are fit for purpose for the areas they will be installed in.
- ✓ Place fire appliances and extinguishers throughout the building. At a minimum you'll want dry powder and /or CO2 units – our team can talk you through the options.
- ✓ Maintain and check all fire equipment to current NZ standards.

## Handling hazardous substances

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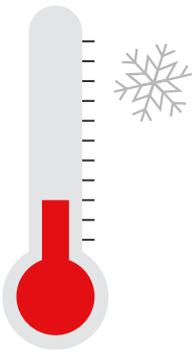
Store and handle hazardous substances properly.

### Must haves

- ✓ Separate non-compatible substances and try to limit quantities – you can keep some small quantities in a dangerous goods cabinet. It's also essential to check on licensing. Please visit the Worksafe website for information.
- ✓ Ammonia is a toxic gas and can be flammable. If it leaks, it can mean anything from contaminated stock to a fire or explosion.
- ✓ Separate ammonia refrigeration machinery from other areas in the building, and ideally in its own well-ventilated building or room.
- ✓ Install an ammonia detection and alarm system, make sure shut off valves are easy to find and have a site emergency plan to deal with an ammonia incident.

## Refrigeration tips

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Things to remember about fridges, chillers and freezers.

### Best practice

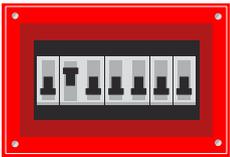
- Follow the manufacturer's instructions for all fridges, chillers and freezers.
- Fit chillers and freezers with temperature monitors that warn when there's an increase in temperature or power is switched off. These systems can send notifications when there's a problem e.g. SCADA systems or a smart device.

### Must haves

- ✓ Goods in coolstores tend to be perishable, so a failure of the refrigeration systems can result in serious losses.
- ✓ It's best to use a non-flammable refrigerant, but where flammable refrigerant is used, there should be a gas detection to provide early warning of any leaks.

## Electrical

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Poorly managed electrical systems can present serious risks.

### Best practice

- Undertake a visual inspection and limited testing for older buildings, especially where there are ongoing electrical issues or where the system shows wear and tear. Get a professional electrician to provide a comprehensive check every few months.
- Maintain all electrical equipment in accordance with manufacturer's guidelines.
- Check and maintain emergency generators and ensure fuel storage is compliant with current legislation.
- Make sure electrical switchboards are fault free/ Switchboards and electrical installations should be kept in good condition, especially in older buildings.
- Ensure all open switchboards are enclosed.

- Keep switchboards away from sandwich panel walls. If there's no alternative, at least use a non-combustible board in between them.

### Must haves

- ✓ Commission thermographic imaging of switchboards to help identify elevated temperatures (which can indicate potential failure) and overloading.
- ✓ Ask an electrician to undertake regular checks for elevated temperatures and overloading.
- ✓ Make sure all portable electrical equipment is tested and tagged. Keep extension leads and power boards to a minimum. Damaged leads boards should not be used.
- ✓ Check that your coolstore is protected by an automatic fire detection system – or at the very least that electrical switch rooms or fuse boards have monitored automatic smoke detection coverage.

## Watching out for water damage

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With routine checks and a proper plan, the risks can be seriously reduced.

### Best practice

- Plumb washing machine and dishwasher outlets into the wastewater pipe, not simply with the waste pipe hooked over a sink.

### Must haves

- ✓ Know where the water shut off valve(s) are for the water supply. Where possible, shut off the water supply during extended shutdowns or when not needed e.g. over the summer holidays or in an unoccupied building.
- ✓ Ensure flexi-hoses are checked regularly and replaced if showing signs of damage – or every 10 years otherwise.
- ✓ Check shower enclosures for signs of deterioration, especially to the wall boards/tiling
- ✓ Inspect plumbing, water pipes and waste lines for leaks, damage or corrosion. Check that all basins, tanks, etc have overflow facilities. Process tanks should be banded.
- ✓ Check and clean the roof regularly. This is important before the winter season and after storms. Pay attention to membrane-style roof coverings as these have a limited life and can be affected by environmental exposures.
- ✓ Check flashings where the walls and roof meet, and also pipes and skylights where they penetrate the roof covering.

## Lighting tips

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Good lighting can reduce the risk of accidents and theft.

### Best practice

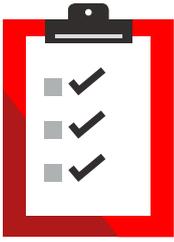
- LED lights are a good alternative, with good light and less risk due to low operating temperatures and low current usage.

### Must haves

- ✓ Make sure fluorescent lights and tubes are working properly, and replace any tubes that are not lighting up. If the problem persists have an electrician check out the light.
- ✓ Position lights over aisles, not directly over the stored goods.

## Management controls

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Some tips to make your building safer.

### Must haves

- ✓ Maintain the building, building systems, plant and equipment regularly.
- ✓ Train staff, occupants, etc. to use and operate plant and equipment according to the manufacturer's guidelines.
- ✓ Make sure staff know the risks, e.g. around refrigerant gases and sandwich panel.
- ✓ Check and maintain fire appliances and fire protection systems.
- ✓ Handle and store hazardous substances correctly.
- ✓ Manage hazardous activities like hot work, working at height, confined space etc.
- ✓ Don't allow hot work within 5 metres of any sandwich panel. If it's essential, protect it with welding screens, etc.
- ✓ Ensure there is a robust self-inspection routine in place – a simple look around all areas to see that everything is as it should be.
- ✓ Have proper procedures are in place if fire systems like the sprinkler system is out of commission for more than a few hours i.e. an impairment procedure.
- ✓ Give smokers a designated spot on site with the right receptacles for disposal of smoking materials. (No waste bins in the area).
- ✓ Ensure housekeeping standards are maintained both internally and externally.

## Important housekeeping notes

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### Must haves

- ✓ Keep bins well clear of the building (at least 10m), or if you can't, keep the lids locked and secure.
- ✓ Make sure goods are stored neatly with plenty of clear space, whether it's storage racks or block storage. Floor level stock is best kept on pallets to raise it off the floor and limit damage in case of a flood, etc.
- ✓ Remember that stacked pallets (wooden or plastic) can be a huge fuel source for fire and burn quickly. Store pallet stacks at least 10m from the building – more if possible. The stacks should be divided into different blocks and each block at least 4.5m from the next.
- ✓ If pallets are stored inside they should be in blocks at least 1m away from building walls, at least 4.5m apart and at least 1m below all light fittings.

## Keep business going smoothly

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### Best practice

- Consult with a professional to check if your cyber security measures are good enough, especially if you maintain confidential records such as a customer database or bank account details.

### Must haves

- ✓ Back up critical data weekly and consider using secure Cloud services.
- ✓ Ensure you've got antivirus protection on your computer and regularly update it.
- ✓ Keep important paper records in a fireproof box/cabinet.

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