WORKING TOGETHER TO MANAGE BUSINESS RISK

Fibre Glassing & Carbon Fibre

Having a solid plan for a safer, more secure site

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.

Fibre glass and carbon fibre operations usually have a lot of risks around hazardous substances, fire risks, heat, and dust can all create problems if not managed properly. With the right plans in place, though, your risk management can be as rock-solid as the finished products themselves.

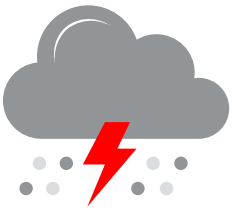
Keep your site safe

Any exterior cladding, access doors, windows and their locks, latches and hinges should be in good working order.

Must haves

- ✓ **Any access roller doors need to be secure with pins and padlocks once the business is closed for the day. Motorised doors should have their electric open/close switch locked – while manual doors should be chained to the building.**
- ✓ **Organise regular maintenance to check that:**
  - There aren't any holes in fire walls and that fire doors can be easily opened and closed.

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.**

Managing vehicle impacts

Reducing the chance of vehicle damage.

Best practice

- Control where trucks, forkhoists and customers vehicles move onsite to avoid any collisions.

Must haves

- ✓ **Protect any parts of the building at risk of impact (like loading docks and parking areas) with sturdy bollards.**
- ✓ **Display maximum height signage to protect canopies or overhangs.**

Maintaining a secure site

Keep your business safe and intruders out.

Best practice

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

Must haves

- ✓ **Check that doors and windows are in good working order. It's a good idea to bar windows and fit your doors with anti-jemmy strips.**
- ✓ **High fences and secured gates are important for these kinds of sites. Use a close shackle padlock, or protected padlock that's hard to tamper with – and don't leave it unlocked on the gate at any time.**
- ✓ **Install a monitored intruder alarm with a security patrol response that's professionally maintained at least once a year. Make sure your alarm sensors are left clear too. You might also want to consider random after-hours security patrols.**

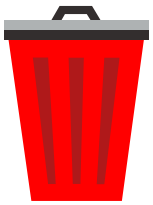
Putting out the fire risk

Having the correct equipment and protection in place can reduce the potential for loss.

Best practice

- Consider installing a monitored fire detection system that's fitted with smoke and heat detectors – but make sure the detector unit you choose is suitable for your site to avoid false alarms.
- Regularly train your staff how to use fire extinguishers as part of their usual safety and evacuation drills.
- You'll need an appropriate number of fire extinguishers, which are located throughout the site and can be easily accessed by staff. We recommend General Purpose 4.5kg ABE dry powder units as a minimum.
- Foam extinguishers are also effective against liquid resin fires – you might want to have these onsite as well. We can give you more information on suitable units and locations.
- Yearly maintenance is a must for all fire extinguishers and hose reels.

Good management controls



Check that all unnecessary electrics are switched off when you're locking down at the end of the day.

Best practice

- Make sure fire exits and passageways are clear of stored items.

Must haves

- ✓ **Keep areas around switchboards, lights and other ignition sources clear of items that can burn.**
- ✓ **Store raw production materials away from operating plant and equipment, with any product that's been used or spilled cleaned up and thrown away.**
- ✓ **Operate and clean machinery in line with manufacturer's instructions.**
- ✓ **Use non-combustible floor coverings if you're applying fibreglass with a chopper gun.**
- ✓ **Keep choppers and spray guns suspended over a container to catch any drips or drainage, as spilt catalyst can cause fires. Relieve pressure in the resin and catalyst pressure vessels at the end of the working day.**
- ✓ **Store and handle all hazardous substances properly and safely. That means separating any non-compatible substances, limiting quantities to a minimum necessity, and checking if HSNO certification is required.**
- ✓ **External waste and recycle bins/skips should be kept away from the building and securely padlocked.**
- ✓ **Complete a general sweep through woodworking areas at the end of each day (at a minimum). Take a look at our Woodworking guidelines sheet for more info.**
- ✓ **Keep small amounts of hazardous substances in dangerous goods cabinets — and larger quantities in a dangerous goods store or separate area in the building.**
- ✓ **Use automatic extraction or regularly sweep and vacuum to reduce dust.**

Electrical and lighting

Faulty or damaged electrical systems can lead to fires.

Best practice

- Consider using LED lighting where you can.

Must haves

- ✓ **Replace high intensity discharge lamps according to the manufacturers time frames. HID lights should be turned off for at least 15 minutes at least once a week.**
- ✓ **Test and tag all portable electrical equipment — and keep the use of extension leads and power boards to a minimum.**
- ✓ **Not using damaged leads and boards.**
- ✓ **Cover open switchboards.**
- ✓ **Replace high intensity discharge lights (HID) according to the manufacturer's timeframes. Fires can start when the lamp fails due to hot debris falling. These lights should be switched off, allowed to cool down then switched back on, at least once a week. They are most likely to fail on start-up.**
- ✓ **Check that fluorescent lights and tubes are in good working order and replace any lamps that aren't properly. If you notice any recurring problems, have an electrician check them out.**

Watching out for water damage

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

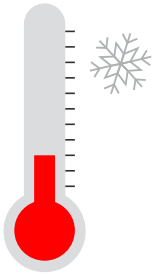
Best practice

- 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 bunded.**
- ✓ **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.**

The right steps for risk-free refrigeration



Best practice

- Use temperature monitoring to stay across any change in the refrigerated temperatures.
- Consider installing an emergency generator in case the power fails.

Must haves

- ✓ Pre-impregnated (Pre-preg) carbon fibre needs to be kept refrigerated. Make sure all refrigeration equipment is operated and maintained appropriately.
- ✓ Check any refrigeration equipment that's constructed out of sandwich panel material for damage and repair as soon as possible.
- ✓ Check that any ovens used for carbon fibre operations are legally compliant and constructed of non-combustible materials — with suitable safety cut outs e.g. flame out, over temperature etc.

Maintenance

Must haves

- ✓ Have a regular maintenance programme in place for the building, building systems, fire protection and security equipment.
- ✓ Make sure ongoing maintenance is scheduled for all plant and equipment that's used on site.

Hazardous substances

Hazardous substances need to be stored and handled safely.

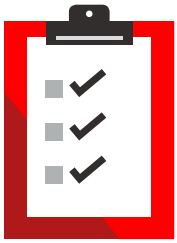
Best practice

- Make a list of the hazardous substances on site — the Hazardous Substances Toolbox on the Worksafe website can help.

Must haves

- ✓ **Ensure all electrical installations comply with hazardous atmosphere zones as per HSNO regulations.**
- ✓ **Remember that adequate ventilation of the work area is essential. Maintain ventilation systems according to the manufacturer's guidelines.**
- ✓ **Keep hazardous substances in a bunded area to contain any potential leakages.**
- ✓ **Keep up-to-date Material Safety Data Sheets for every kind of hazardous substance on-site. Your supplier can replace any that are over five years old.**
- ✓ **Label your substances, keep containers closed and never store hazardous substances in drink bottles.**
- ✓ **Store organic peroxides, such as MEKP, away from other substances.**
- ✓ **Make sure that only the required amounts of resins (like epoxy or polyester) are mixed when working with these substances to reduce the risk of the resin mixture heating up and igniting combustibles.**
- ✓ **Put mixed resin that isn't being used in wet bins to avoid a fire — and don't dispose of the rubbish until the mix has cooled.**
- ✓ **Store solvent-covered rags in a steel bin with close fitting steel lid.**
- ✓ **Take the following precautions if spray coating is being carried out on site:**
  - Ensure spray booths comply with Health and Safety at Work Act and spray coating regulations.
  - Let ventilation systems operate for at least 5 minutes after you've stopped spraying.
  - Regularly clean booths, fans and ducting of overspray.
  - Check spray booth panelling for damage and repair them as soon as possible — they're flammable.
  - Make sure electrical and mechanical ventilation complies with the relevant standards – and hold on to records of the most recent inspections.
- ✓ **Make sure hazardous waste is being safely disposed of — ideally by a specialist company.**
- ✓ **Train your staff. It isn't just essential for safe work, it's a legal requirement.**

Good management controls



Must haves

- ✓ Before leaving at the end of the day, take a look around all of the areas to see that everything's as it should be.
- ✓ Make sure everyone's on the same page when it comes to housekeeping. The more your team all knows what's needed, the more likely you are to avoid risks.
- ✓ Have a proper procedure in place if fire systems — like sprinklers — are out of action for more than a few hours.
- ✓ Limit any smoking to a designated area that's free of any waste bins and equipped with proper receptacles for throwing away cigarette butts.
- ✓ Have a site plan which outlines the site boundary, spill kits, fire equipment and emergency exits – as well as where hazardous substances are kept.
- ✓ Check that all unnecessary electrics are switched off when you're locking down at the end of the day.

Don't get disrupted

Have a good business recover plan in place.

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 at least weekly and consider using secure Cloud services.
- ✓ Ensure you've got antivirus protection on your computer and regularly update it.
- ✓ Invest in a business continuity plan to provide a process for prioritising activities, functions or services following an incident that disrupts your business.

Visit **vero.co.nz/risk-profiler** to check out our other advice sheets for more tips and in-depth information about managing risk.

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