Composite Repair			
Business Name:		ABN:	
Business Address:			
Contact Person:	Phone:	Email:	

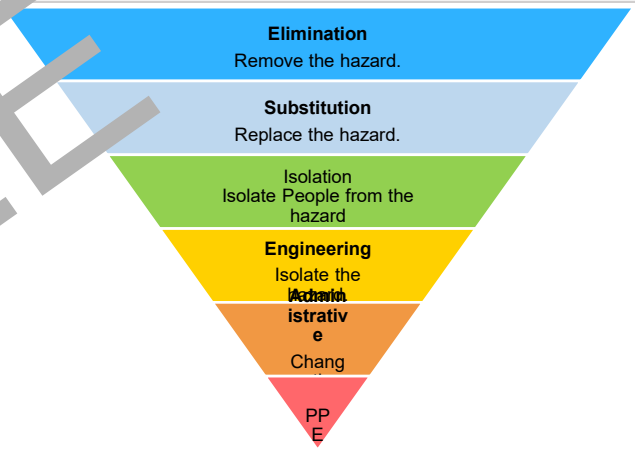
THIS RISK ASSESSMENT IS APPROVED BY THE PCBU OF THE PROJECT		
Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.		
Full Name:		
Signature:	Title:	Date:

CLIENT OR PRINCIPAL CONTRACTOR DETAILS	
Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date Risk Assessment supplied to Project Manager:	

RISK MATRIX

LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE		
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Rev before work
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACU	2M MO RATE	Ensure control measures in place.
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 H	1L LOW	Monitor and keep records.

HIERARCHY OF CONTROLS



Risk Rating & Required Action:

4A	Stop work. The risk is intolerable. E inate the hazar redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or hi er-level authorisati is required.
3H	Review and approve additional c rols b ask arts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in ace and effe ive. Proceed with caution; monitor conditions.
1L	Proceed, following standard operating procedures Monitor and keep records.

Consequence Scale:

Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
Catastrophic	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
Major	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
Moderate	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
Minor	First-aid only, no lost time	negligible delay	Isolated non-conformance
Insignificant	No injury	no schedule impact	Deviation caught and corrected on site

Notes on Hierarchy of Controls:
Remember to apply controls in the preferred order shown by the coloured pyramid:

1. **Eliminate**
2. Substitute
3. Isolate
4. Engineering
5. Administrative
6. PPE

Always document **why** a lower-order control is accepted if elimination or substitution is not reasonably practicable.

aligned with Safe Work Australia's Managing the risk of fatigue at work *(2023) and ISO 45001:2018 clauses 6–8.*

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. Governance, Legal Compliance & WHS Accountability	• Lack of clear WHS governance structure for composite repair activities • Non-compliance with WHS Act 2011, WHS Regulation and relevant Codes of Practice (e.g. Managing Risks of Hazardous Chemicals in the Workplace) • Absence of documented WHS policy specific to composite repair and resin processing • Unclear allocation of WHS duties between PCBUs, officers, supervisors and contractors • Failure to consult, cooperate and coordinate with other duty holders on shared sites • Inadequate due diligence by officers in monitoring WHS performance of composite repair operations	4A	• Develop and endorse a WHS Policy that explicitly addresses composite and fibreglass repair, bonding and resin-processing activities, aligned with the WHS Act 2011 and WHS Regulation • Define and document WHS roles, responsibilities and accountabilities for officers, line managers, supervisors, workers and contractors involved in composite repair • Implement a WHS governance framework including regular WHS meetings, reporting lines, and escalation pathways for composite repair risks • Ensure officers exercise due diligence by regularly reviewing WHS performance indicators, audit outcomes and incident trends for composite work • Establish consultation and coordination arrangements with co-located PCBUs (e.g. host employers, landlords, clients) regarding shared plant, ventilation and emergency arrangements • Schedule periodic legal compliance reviews against current Australian WHS legislation, Standards and relevant guidance (e.g. Safe Work Australia, SafeWork NSW/WorkSafe regulators) specific to hazardous chemicals and airborne contaminants • Integrate composite-repair specific WHS requirements into procurement, project approval and contract management processes	3H
2. Planning, Design & Change Management for Composite Repair Work	• Composite repair tasks commenced without formal risk assessment or planning • Poor design of repair methods leading to unnecessary exposure to resins, solvents and dusts • Uncontrolled introduction of new resin systems, hardeners or catalysts without hazard review • Lack of Management of Change (MoC) for new equipment (e.g. curing ovens, extraction systems) • Inadequate consideration of environmental conditions (temperature, humidity) affecting cure and off-gassing • Failure to plan for waste management and residue handling (e.g. contaminated rags, resin sludges)	4A	• Implement a mandatory risk assessment and job planning process for all composite repair projects, including assessment of hazardous chemicals and dust generation • Require engineering or technical review of repair design, including selection of materials, curing method and surface-preparation processes, to minimise health and safety risk • Establish a Management of Change (MoC) procedure for introduction or modification of resin systems, catalysts, fillers, adhesives and associated plant • Develop standard repair design templates and work envelopes that incorporate ventilation, segregation, curing controls and maximum batch sizes for resins • Include environmental and seasonal conditions (heat, humidity, ventilation behaviour) in planning documents and set clear go/no-go criteria for repair work • Integrate composite repair risk controls into project scheduling to avoid concurrent incompatible activities (e.g. hot work near resin processing or curing areas) • Plan for safe storage, segregation, labelling and disposal of resin wastes, contaminated PPE and fibreglass offcuts in line with EPA and local council requirements	2M
3. Chemical Hazard Management (Resins, Hardeners, Solvents & Additives)	• Exposure to hazardous resins, hardeners and catalysts (e.g. epoxy, polyester, vinyl ester systems) causing dermatitis, sensitisation or respiratory issues	4A	• Maintain a current hazardous chemicals register for all resins, hardeners, thinners, release agents and cleaning solvents used in composite repair and fibreglass work	2M

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	• Insufficient review of Safety Data Sheets (SDS) leading to unrecognised acute and chronic health risks • Incorrect decanting, mixing or transfer of hazardous chemicals increasing risk of spills and vapour release • Use of incompatible chemicals leading to violent reactions, heat generation or off-gassing • Inadequate chemical inventory management resulting in expired or degraded products with unpredictable behaviour • Poor labelling and secondary container use leading to misidentification and improper handling		• Ensure up-to-date Australian-compliant SDS are accessible and incorporated into risk assessments and training for all workers handling these substances • Standardise resin-mixing and transfer processes using closed or semi-closed systems where reasonably practicable (e.g. metered dispensers, lidded mixing vessels) • Develop written procedures for chemical compatibility, mixing ratios, maximum batch sizes and curing times based on manufacturer technical data and SDS • Implement a chemical inventory and stock-rotation system, including checks on expiry dates, storage conditions and segregation of incompatibles (e.g. oxidisers, acids, peroxides) • Ensure all primary and secondary containers are labelled in accordance with WHS Regulation and GHS, with clear identification of hazards and PPE requirements • Conduct periodic industrial hygiene reviews of chemical-handling practices and adjust engineering and administrative controls based on monitoring results and SDS updates	
4. Airborne Contaminants, Dust, Fume & Ventilation Control	• Fibreglass cutting, sanding and grinding generating airborne dust and respirable fibres • Resin, styrene and solvent vapours accumulating in poorly ventilated repair areas • Inadequate design, maintenance or positioning of local exhaust ventilation (LEV) systems • Reliance on natural ventilation without verification of effectiveness for composite bonding activities • Lack of air monitoring for styrene, solvents, isocyanates or composite dusts where relevant • Overspray and aerosol generation from resin application techniques impacting adjacent work areas	4A	[redacted]	2M
5. Plant, Equipment & Engineering Controls for Composite Repair	• Use of unsuitable or poorly maintained equipment such as grinders, sanders, cutting tools and curing ovens	4A	[redacted]	2M

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	• Failure of extraction systems, curing equipment or heating devices leading to fire or fume events • Absence of guarding, interlocks or emergency stops on powered equipment used in fibreglass repairs • Inadequate electrical safety management for portable tools in dusty and resin-contaminated environments • Improvised heating or curing arrangements (e.g. portable heaters, heat guns) increasing risk of ignition • No system for verifying equipment suitability with hazardous locations (e.g. flammable vapour zones)		[redacted]	
6. Hazardous Area, Fire & Explosion Risk Management	• Accumulation of flammable vapours from resins, hardeners and solvents in enclosed spaces • Ignition sources such as [illegible]ding, grinding, static electri[illegible]y or non-rated electrical gear in re[illegible]n-processing areas • Inadequate class[illegible]ation [illegible]s areas and lack of co[illegible]onding con[illegible]ls • Improper storage of flammable li[illegible]us, catalysts and oxidising a[illegible]ts • Failure to manage exothermic reactions in resin mixing leading to overheating or spontaneous combustion of waste • Insufficient fire detection, suppression equipment and emergency response planning	4A	[redacted]	2M
7. Storage, Handling & Transport of Composite Materials	• Inadequate segregation and storage conditions for resins, hardeners, catalysts and fibreglass materials	3H	[redacted]	2M

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	• Manual handling risks associated with moving resin drums, rolls of fibreglass mat and repair components • Unsecured storage leading to container damage, leaks or contamination • Transport of hazardous chemicals on public roads without appropriate documentation or vehicle fit-out • Lack of temperature control causing degradation or instability of stored resin systems • Inadequate spill containment in storage areas		[redacted]	
8. Safe Systems of Work, Procedures & Documentation	• Absence of structured safe systems of work for composite bonding and fibreglass repairs • Over-reliance on informal practices and worker experience instead of documented procedures • Procedures not reflecting current equipment, materials or legislation • Confusing or overcomplex documentation leading to poor uptake by technicians • Failure to integrate supplier technical bulletins and SDS updates into work instructions • Lack of version control and review of composite repair procedures	3H	[redacted]	1L
9. Training, Competency & Supervision for Composite Work	• Workers performing composite repairs, fibreglass work or resin processing without adequate training or competency assessment • Limited understanding of long-term health risks such as sensitisation or chronic respiratory disease	4A	[redacted]	2M

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	• Supervisors lacking specific knowledge of composite hazards and control measures • Inadequate induction for new workers, contractors or labour-hire staff • No verification of competency for use of particular resin systems, curing equipment or ventilation controls		[redacted]	
10. Health Monitoring, Exposure Surveillance & Fitness for Work	• Unrecognised exposure to sensitising agents in resins leading to occupational asthma or skin sensitisation • Inadequate monitoring of workers regularly exposed to hazardous chemicals and composite dusts • Failure to identify and manage worker with pre-existing conditions aggravated by resin or fibreglass exposure • Poor management of fatigue, heat stress and other fitness-for-work factors in composite repair environments • Lack of data to detect trends in exposure-related health issues	3H	[redacted]	2M
11. PPE Programs & Respiratory Protection Management	• Inappropriate or inconsistent use of respiratory protection during sanding, grinding or resin application • Incorrect selection of gloves, coveralls or eye/face protection for specific resin systems and solvents • Reliance on PPE as a primary control rather than as part of a hierarchy of controls • Lack of fit-testing and training for tight-fitting respirators	3H	[redacted]	1L

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	• Poor PPE maintenance, cleaning and replacement systems leading to contamination and reduced protection		[redacted]	
12. Work Environment, Ergonomics & Manual Handling in Composite Repairs	• Poor workshop layout causing unnecessary bending, reaching and awkward postures during fibreglass repair and bonding • Manual handling of large repair sections, moulds or hull components leading to musculoskeletal disorders • Inadequate lighting and noise control affecting accuracy and communication • Thermal discomfort (heat from curing processes or poor insulation) impacting concentration and tolerance for PPE • Slip, trip and fall hazards due to resin spills, offcuts and hoses in walkways	3H	[redacted]	2M
13. Contractor, Visitor & Interface Management	• Contractors performing [illegible], electrical or building tasks near composite repair zones without understanding specific hazards • Visitors entering resin-processing or fibreglass repair areas without adequate induction or PPE • Poor coordination between different PCBUs working on shared sites (e.g. boatyards, workshops, client premises) • Lack of control over subcontractor competency and compliance with composite-specific WHS requirements	3H	[redacted]	2M

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			[redacted]	
14. Emergency Preparedness, Spill Response & Incident Management	• Inadequate preparedness for resin or solvent spills in composite repair areas • Lack of clear procedures for managing acute exposure incidents (e.g. eye splashes, inhalation events) • Emergency exits and routes compromised by stored materials, moulds or equipment • Insufficient first aid resources and personnel trained for chemical exposure scenarios • Failure to investigate and learn from incidents and near misses related to composite repair activities	3H	[redacted]	1L
15. Monitoring, Auditing & Continuous Improvement of Composite Repair WHS	• Lack of systematic [illegible] of WHS performance in composite repair operations • Non-compliance with established procedures and controls going undetected • Failure to track and act on trends in incidents, exposures or near misses involving fibreglass, resins and bonding • Outdated risk assessments that do not reflect current materials, equipment or work practices • Limited worker involvement in identifying and solving WHS issues in composite repair	3H	[redacted]	1L

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EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

LEGISLATIVE REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES FOR ANY STATE THAT ARE NOT APPLICABLE

Queensland & Australian Capital Territory
Work Health and Safety Act 2011
Work Health and Safety Regulations 2011
Legislation QLD: https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws
Codes of Practice QLD: https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice
Legislation ACT: https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations
Codes of Practice ACT: https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice

New South Wales
Work Health and Safety Act 2011
Work Health and Safety Regulations 2025
Legislation NSW: https://www.safework.nsw.gov.au/legal-obligations/legislation
Codes of Practice NSW: https://www.safework.nsw.gov.au/resource-library/list-of-codes-of-practice

Northern Territory
Work Health and Safety (National Uniform Legislation) Act 2011
Work Health and Safety (National Uniform Legislation) Regulations 2011
Legislation NT: https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws
Codes of Practice NT: https://worksafe.nt.gov.au/forms-and-resources/codes-of-practice

South Australia
Work Health and Safety Act 2012 (SA)
Work Health and Safety Regulations 2012 (SA)
Legislation for SA: https://www.safework.sa.gov.au/resources/legislation
Codes of Practice for SA: https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs

Tasmania
Work Health and Safety Act 2012
Work Health and Safety (Transitional and Consequential Provisions) Act 2012
Work Health and Safety Regulations 2012
Work Health and Safety (Transitional) Regulations 2012
Legislation for TAS: https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations
Codes of Practice for TAS: https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.

Victoria
Occupational Health and Safety Act 2004
Occupational Health and Safety Regulations 2017
Legislation VIC: https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations
Codes of Practice VIC: https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice

Western Australia
Work Health and Safety Act 2020
Work Health and Safety Regulations 2022
Legislation Western Australia: https://www.commerce.wa.gov.au/worksafe/legislation
Codes of Practice WA: https://www.commerce.wa.gov.au/worksafe/codes-practice

Safe Work Australia Links
Law and Regulation (All States): https://www.safeworkaustralia.gov.au/law-and-regulation
Model Codes of Practice: https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice

Model Codes of Practice

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work