

GFRP REBAR



Site Handling Guide

GFRP rebar does the same job as steel, but it is not steel.

Almost every problem we see on site comes from one of the 7 items below — not from the material. Five minutes reading this now saves a rework later.

This document is designed for installation crew.



1. Dragging bars

DON'T Drag bundles across the slab or the ground.

DO Carry or lift them. Use slings, not hooks or chains that bite into the bar.

Why: Bond comes from the sand coating. Dragging grinds it off. The bar will still look fine — the bond will not be.





2. Cutting

DON'T Cut it with a shear, a grinder disc meant for steel or an oxy torch.

DO Use a diamond blade. Wear a P2 mask and eye protection.

Why: Shearing crushes and splits the bar end. Cutting makes a fine dust that needs respiratory protection — more so than cutting steel.

3. Bending

DON'T Bend it. Not with heat, not with a bender, not by hand.

DO Order the bend from the factory. If a bend detail changes, tell the supplier immediately — new bar has a manufacturing lead time.

Why: The bar is cured straight. Bending it after cure breaks the fibres. Heat does not soften it — it damages it. This is the single biggest cause of delay on GFRP jobs.





4. Storage

DON'T Store bar directly on the ground or where plant drives past.

DO Stack it on timber bearers, clear of traffic.

Why: Ground contact and site traffic damage the surface and contaminate it. Mud and oil on the bar also reduce bond.

5. Walking on

DON'T Let the crew walk on the cage like it's a steel mat.

DO Use walkways or boards. Re-check and re-tie anything that has moved before the pour.

Why: The cage is roughly a quarter of the weight. Foot traffic displaces it far more easily than steel.





6. Spacing

DON'T Space it the way you'd space steel.

DO Work from the drawing. Check the first mat against it before you go further.

Why: GFRP designs usually have more bars at tighter spacing, and sometimes different cover. Habit from twenty years of steel will put it in the wrong place.

7. Cover bars

DON'T Leave bar uncovered for weeks in the sun.

DO Cover stored bundles. Use the oldest stock first.

Why: Long UV exposure degrades the resin at the surface. A few days is fine. A few months uncovered in a Queensland summer is not.



Pre-pour checklist

Run through this with the supervisor before the pour is signed off.

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- ☐ Bar stored off the ground, covered, clear of traffic
 - ☐ No visible damage or scoring to the bar surface
 - ☐ No mud or oil on the bar
 - ☐ All bends are factory bends — nothing bent on site
 - ☐ Cut with a diamond blade
 - ☐ Spacing and bar count checked against the drawing
 - ☐ Cover checked and correct
 - ☐ Cage tied securely and nothing displaced by foot traffic

If something has already gone wrong

Stop and call us before you pour. Damaged bar, a bend made on site or bar that has been stored badly can usually be assessed quickly — and replaced if it needs to be. Fixing it before the pour costs a phone call. Fixing it after costs a lot more.

Questions on site

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This guide covers product handling only. It is general guidance for the installation crew and does not replace the project drawings, the project specification, or the engineer's instructions. Where this guide and the project documents differ, the project documents apply.

