



TriRoof GRP Roof Kit Application Guidelines



PERSONAL SAFETY

Please ensure you are familiar with the Material Safety Data Sheets (MSDS) before starting. Personal protection is required to be worn at all times, and this personal protection includes safety goggles, gloves, apron and overalls. If you have any queries, please contact us on 0113 270 3133.

TRIROOF KIT CONTENTS

TriRoof GRP Kits are supplied with the following materials

1. Chopped Strand Matting
2. Polyester Resin
3. Roofing Topcoat
4. Catalyst
5. Tools (if you have chosen a kit that comes with tools)



OVERVIEW

The most common substrate for flat roofs is Fibreglass or Bitumen. The TriRoof GRP Complete Kits cannot be laid on Felt or Asphalt roofs. If repairing an old felt roof, the Roofer must remove the felt before starting. If the timber has been exposed, check for traces of rot and repair if necessary.

When repairing a GRP roof, clean off the damaged area and sand the GRP surface to ensure the new layer of GRP will adhere. Sand at least 150mm past the damaged area.

Before you begin, make sure to plan the work. If you are working on a large area, leave a dry section for access on and off the roof. Finish this area last.

WORKING TEMPERATURE CHECKS

To ensure the Resin cures properly, it is essential to laminate at warm temperatures, ideally around 20°C. The Roofing Resin will not cure adequately below 5°C, and at temperatures above 30°C, it will cure too quickly.



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ADDING THE CATALYST

All Polyester Resins and Topcoats need Catalysts (hardeners) for the curing process to begin. Using a Catalyst Dispenser, add 20ml of Catalyst per kilo of Resin. Once the Catalyst is added, stir thoroughly. Hardening starts immediately, so use only a working quantity of Catalyst.

Within 10-20 minutes of being catalysed, the Resin takes on a jelly-like consistency before becoming hard for approximately 30-40 minutes. (This is based on room temperature of roughly 20°C.)

Curing generates heat within the Resin. Adding too much Catalyst or large volumes of Resin increases this heat. A thick Fibreglass laminate or large casting should be built up in stages.

Occasionally, over catalysing the Resin can cause it to overheat and cause a fire.

Catalyst should be thoroughly mixed into Resins and Topcoats. Use the correct amounts for the best results. Dispensers are recommended for accuracy. 1% catalyst is considered a slow mix, 2% is ideal, and 3% is a fast mix.

The higher the temperature, the faster the cure. As a general guide, 2% addition at 20°C gives 15-20 minutes of pot life. Please adjust the amount of Catalyst depending on the temperature at the mixing time.

LAMINATING THE ROOF

- Mix up to 3kg of Resin at a time, enough for 2m² of 450g Fibreglass Matting.
- Apply a catalysed resin coat to the surface, then lay on the first section of Chopped Strand Matting. Apply more Resin to “wet out” (saturate) the Chopped Strand Matting. Then apply the next layer, which should overlap the previous layer by approximately 50mm, and apply more Resin. Stagger the joints to prevent them from overlapping. Using a metal Paddle Roller, the Fibreglass Matting should be consolidated after they have been ‘wetted out’. If trapped air is present, it will show as a white blister in the laminate, so the Roofer must ensure the Fibreglass Matting is completely consolidated.

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LAMINATING THE ROOF (CONTINUED)

- When the layer of 450g matting and Resin has cured, sand down any rough or sharp protrusions, check for dry mat or gaps, and make sure any defects are repaired.
- A Roofer may apply a second layer of Chopped Strand Matting for areas with high foot traffic, e.g. Balconies. This layer is not supplied as standard in the kits.

ROOFING TOPCOAT APPLICATION

Topcoat is also known as painting resin. The finish is exceptionally hard wearing. The Roofer can do sanding with wet and dry paper once it is fully cured. After curing the Resin, examine the laminate for any dry patches (lack of Resin). If satisfied with the roof, sand lightly before applying the Topcoat finish.

To activate the Topcoat, the Catalyst is added and stirred in the working quantity of Topcoat. Add Catalyst at a rate of 1%-4% depending on temperature, but never less than 1%. Mix no more than 5kg at a time. Paint the Topcoat using a good quality Brush or Roller.

TOPCOAT COVERAGE

A Topcoat quantity of approximately 500g-600g is required per m² of the surface area.

TOPCOAT CURE TIMES

When activated with Catalyst at 2% in temperatures of 20°C, pot life is approximately 20 minutes. Higher temperatures and higher Catalyst additions will reduce pot life.