

ROOF REPAIR KITS

PERSONAL PROTECTION

Please familiarise yourself with the Material Safety Data Sheets before starting. Personal protection should be worn at all times, safety goggles, gloves, apron and overalls. If you have any queries please contact us on 028 41753738.

MATERIALS

GRP Kits are supplied with the following materials

1. Fibreglass Matt
2. Polyester Resin
3. Grey Topcoat
4. Catalyst / Hardener
5. Tools

OVERVIEW

Flat Roofs are generally constructed with fibreglass or Bitumen Based substrate. Fibreglass cannot be laid on Roofing felt or asphalt. If you are repairing a an old felt roof, the felt must be removed prior to starting. When 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.

It is important to plan your work before you start. If you are working on a large area, leave a dry section for access on and off the roof, finish this area last.

WORKING AREA

Laminating should be done at warm temperatures ideally around 20°C, as this ensures the resin will cure correctly. Resin will not cure adequately below 15°C, and at temperatures above 30°C, it will cure too quickly.

MIXING CATALYST

All resins / topcoats require the addition of catalyst (hardener) to initiate the curing process. Use a dispenser to add 20ml of catalyst per kilo of resin. Stir thoroughly. The hardening process begins immediately, so only add catalyst to a working quantity.

Once catalysed the resin gradually cures, taking on a jelly-like consistency in about 10-20 minutes before becoming hard in about 30-40 minutes at room temperature (about 20°C). The curing process generates heat within the resin. Too much catalyst or large volumes of resin increases this heat, so a thick laminate or a large casting should preferably be built up in stages. Over catalysing the resin can cause the resin to overheat and sometimes cause a fire.

Thorough mixing of catalyst into resins and topcoat is very important. Also, the correct quantities should be used for the best results. Dispensers are advised for accuracy. 1% catalyst is considered a slow mix, 2% is ideal, 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 pot life.

APPLYING THE LAMINATE

Mix a maximum of 2kg of resin at a time, enough for 2m² of fiberglass mat.

- Paint on a coat of catalyzed resin to the surface and then lay on the first section of fiberglass, apply more resin to “wet out” (saturate) the fiberglass. Then apply the next layer, which should overlap the previous layer by approximately 75mm and again apply more resin. Stagger the joints so that they do not overlap. Once the fiberglass has been ‘wetted out’ it is necessary to consolidate the fiberglass and this is done using a metal roller. The roller when used removes any trapped air, this appears in a laminate as a white blister, and care must be taken to ensure that this is done.
- The best method is applying wet-on-wet, if you do leave laminate for more than 24 hours make sure you sand the surface to assist adhesion.
- When the layer of 450g matting and resin have cured, sand down any rough or sharp protrusions and check for dry mat or gaps, and ensure any defects are removed or repaired.

- A second Layer can be applied to give a more durable surface. This layer is not supplied as standard in the kits.

TOP COATING

The topcoat is designed to achieve a fire retardant roof covering to BS476 Part 3. Topcoat is also known as painting resin. Topcoat forms a very hard wearing surface. When fully cured it can be sanded with wet & dry paper. Once the resin has cured, check for any dry patches (lack of resin) within the laminate, if you are satisfied with your work sand lightly prior to applying the topcoat finish.

CATALYST / HARDENER

Catalyst is added and stirred to activate the topcoat. Add catalyst at the rate of 2%-3% but never less than 1.5%. Mix enough topcoat for no more than 2m² to 3m² to avoid wasting material. The topcoat can be painted on.

COVERAGE

Approx. 600g of topcoat is required per m² of the surface area.

CURING

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