

SHEATHING PLASTER OR CONCRETE WALLS: IN GRP (GLASSFIBRE)

1. The walls must be painted with "G.4." Solution (Polyurethane Varnish) at spread rate of 220 grs./sq.yd or thereabouts: One coat only. Polyurethanes harden when they come into contact with moisture which is present in all atmospheres. A damp atmosphere will harden G4 faster. Because air and moisture therein is admitted to tin as soon as it is opened: the contents will harden in due course in the tin: so entire contents should be used as soon as possible after tin has opened.

The G4 takes about one hour to harden and eight hours to fully cure. The Polyester resin should be applied as soon as the G4 hardens: or at most within two hours or so. If G4 is allowed to fully cure the resin will not adhere to it. If G4 is not used and resin applied directly to the cement/plaster: the Alkali therein will attack the Polyester resin which will de-laminate.

2. **Laminating the Glassfibre**

Apply Catalysed Resin to wall, apply glassfibre CSM over it, always 1" overlap between pieces, do not lay edge to edge. Roll well with the metal rollers – ensuring that mat is well saturated and all air bubbles extracted. Apply the lamination of surfacing tissue in same operation. This ensures a smooth finish.

Work from top of wall downwards

3. **Applying the Final Surface Coating**

Resin "B" (Initial Gel Coat Resin) is used for this purpose: spread at 2½ ounces per sq. foot of area.

It is usual to pigment this resin: adding colour paste in ratio 10% (ten per cent) by weight. We supply this resin ready pigmented white at time of manufacture at same price as non-pigmented.

Addition of Solution "M/W"

(Wax in Styrene) to final surface coating. This is added to the gel coat in ratio 2% (two per cent by weight). It is essential to add this to gel coats used as final surface coatings because gel coats are wax free resins and would otherwise remain surface tacky when hard. The wax rises to the surface as resin hardens thereby cutting the air off and the gel coat will be tack-free in a short time.

4. **Catalysing the Resin**

The Catalyst (hardener) should be carefully measured in cc's and added to a measured quantity of resin.

One Gallon Resin	=	11lbs
Half Gallon Resin	=	5½lbs
Quarter Gallon Resin	=	2¾lbs
One Pint	=	1.375 lbs (approx. one and one third of a 1lb)

One lb of resin = approx. ¾ pint.

Ratio of Catalyst to Resin

This depends upon the ambient temperature and if resin is being spread very thinly there is a rapid loss of gelation heat (the heat that builds up in the resin as a result of the chemical reaction when the Catalyst is added) which retards hardening: so extra Catalyst is added when resin is being thinly spread.

At 20C (68F) Room Temp add 2% (10 cc's per lb resin) to Resin "A"

At 20C (68F) Room Temp add 3% (15 cc's per lb resin) to Resin "B"

The Resin hardens in the POT: twice as fast as it does when spread: due to heat build-up in the Mass: so restrict each catalysed mix to 3lbs or so.

5. **Cleaning Brushes and Tools**

If work is continuous the resin is constantly being changed: but if work ceases for 10mins or more wash tools out with Acetone thoroughly: or brushes will solidify.

6. **Laminate Thickness**

Walls are normally sheathed in one single lamination of Chopped Strand Mat of thickness (density) 2oz (two ozs) per sq. foot (600 gr./sq.m): with one lamination of surfacing tissue applied over the CSM in the same operation. Resultant laminate thickness is approx. 1/16" (1.5875mm).

7. **Foodstuffs**

Flavour: especially of butter is easily tainted if there is any presence of styrene in the air. 40% of most resins is styrene. Resins should be hardened fast to achieve fast cure. Allow four days at room temp. of 16C, longer at lower temps, for cure to be completed. Provide maximum ventilation. Then flush with hot water or steam hose to remove any styrene latent on the GRP surface. Styrene fumes emanate strongly as resin hardens and ensure that they cannot travel to adjoining rooms where food is being stored or prepared.