ESTIMATING QUANTITIES

To estimate the quantity of materials needed for a specific laminating project,you will need to know the surface area of the mould you will be using. From this, the required quantity of Resin B (Gelcoat) can be calculated - allow 500gm of Gelcoat for every square metre. The surface area of the mould, in square metres, also gives the amount of glassfibre needed. Multiply the area by the number of layers you intend to lay down (ie, the required thickness of the finished laminate), and the result is the total glassfibre quantity. Use this quantity to ascertain, from the table below, the amount of lay-up resin required:

RESIN TO GLASSFIBRE RATIOS

For an effective laminate, it is essential that each layer of the glassfibre material is thoroughly "wetted-out" with Lay-up Resin (Resin A). The amount of resin needed to do this varies, depending on the type of glassfibre material:

MIXING QUANTITIES: POLYESTER RESINS & CATALYST

The proportion of catalyst to resin is normally 2ml of liquid catalyst, or 16cm of paste catalyst, per 100gm of resin. The catalyst should be stirred thoroughly into the resin.

Resin	***Liquid Catalyst (ml)***	***Paste Catalyst (cm)***
50gm	1	8
100gm	2	16
250gm	5	40
500gm	10	80
1 kg	20	160
1.5 kg	30	-
2kg	40	-
5kg	100	-
10kg	200ml	-
25 kg	500ml	-

With lay-up resin (but NOT gelcoat), the rate of cure can be slowed down, by using 1ml liquid catalyst or 8cm paste per 100gm resin - ie, halve the quantities shown above. This can be useful in very hot weather, when the resin might otherwise cure too quickly.

Chopped Strand Mat, 300gsm	Requires 650gm Resin A per square metre
Chopped Strand Mat, 450gsm	Requires 1 kg Resin A per square metre
Chopped Strand Mat, 600gsm	Requires 1.35 kg Resin A per square metre
Plain Weave Fabric, 127 gsm	Requires 150gm Resin A per square metre
Plain Weave Fabric, 200gsm	Requires 250gm Resin A per square metre
Satin Weave Fabric, 500gsm	Requires 350gm Resin A per square metre
Woven Roving, 290gsm	Requires 500gm Resin A per square metre
Woven Roving, 600gsm	Requires 600gm Resin A per square metre
Woven Roving, 780gsm	Requires 780gm Resin A per square metre
Surface Tissue	Requires 200gm Resin A per square metre

PIGMENT QUANTITIES

Resin Quantity	***Black Pigment***	***Other Pigments***
100gm	5gm	10gm
250gm	12gm	25gm
500gm	25gm	50gm
750gm	35gm	70gm
1 kg	50gm	100gm
5kg	250gm	500gm
10kg	500gm	1kg
25kg	1.25kg	2.5kg

The pigment quantity can be varied to reach the required depth of colour.
The table shows the *MAXIMUM* amounts which can be used - do not exceed these, as too much pigment will impair the curing process.