

HOW TO ESTIMATE NECESSARY COVERAGE AND MATERIAL REQUIREMENTS

1. Different amounts of resin are required to wet out different forms of fiberglass. For example, one gallon of resin will wet out approximately the following amounts of fiberglass:

- 40-42 square foot of 8 to 10 oz. Cloth
- 50-53 square foot of ¾ oz. Mat
- 30-32 square foot of 1½ oz. Mat
- 32-35 square foot of 24 oz Woven roving

2. The desired thickness for gel-coat is usually 15 mils (0.15"). This is equivalent to 25 square feet per quart or 100 square feet per gallon. **For example:** If a boat is to be fabricated having a hull area of 100 square feet using gel-coat, ¾ oz. mat, and 2 layers of 1½ oz. mat. Based upon #1 and #2, the following would be required:

Gel-coat required is One gallon. Resin required:

$$\begin{aligned} (100 \text{ sq. ft. } \frac{3}{4} \text{ mat}) / 50 &= 2 \text{ gallons of resin} \\ (200 \text{ sq. ft. } 1\frac{1}{2} \text{ mat}) / 50 &= 2 \text{ gallons of resin} \\ &8 \text{ gallons total of resin} \end{aligned}$$

3. The percentage of glass to resin for various laminates is:

| Type of Fiberglass | %Glass | %Resin |
|----------------------|--------|--------|
| Chopped Glass Lay-Up | 25 | 75 |
| Mat Lay-Up | 30 | 70 |
| Woven Roving Lay-Up | 40 | 60 |
| Cloth Laminate | 45 | 55 |

4. The approximate weight of a finished fiberglass and resin laminate is :

| Thickness | Weight |
|-----------|---------|
| 1/4" | 2 lb. |
| 1/8" | 1 lb. |
| 1/16" | 1/2 LB. |

5. Table Top Resin for various thickness of pour are:

| Thickness | Sq. ft./Gal. | Sq. ft./Qt |
|-----------|--------------|------------|
| 1/4" | 6 | 1-1/2 |
| 1/8" | 12 | 3 |
| 1/16" | 24 | 6 |
| 1/32" | 48 | 12 |
| 1/64" | 96 | 24 |

The above figures will vary depending upon the worker, temperature, thickness of laminate, and methodology used. In general this would mean that the higher the percentage of glass, the stronger the laminate.