

Sea Angler-Fiberglass Bill of Materials

(scroll down for a plywood BOM)

The following listing is an estimate of the fiberglass materials required to build the basic hull only. The material listing is intended to serve as a general guide only and should not be used to purchase materials until the various options and alternatives have been checked to the plans, to the work, and to the materials which may be available in the area in which the hull will be built. The listing is only an estimate and may vary with the amount of waste encountered in the work, the sizes and types of material available, and other variables that cannot be controlled. Figures for materials listed include an overage factor or allow for fitting and trimming to size, but it is probable that additional materials may be required due to waster, defects, how the materials are utilized, etc. In all cases, check the plans and instructions for options.

HULL LAMINATE MATERIAL- FIBERGLASS PLANKING METHOD

- Fiberglass planking "CF-65" or comparable weight: 800 sq. ft. (*)
 - Fiberglass mat 1 oz per square foot: 5904 square feet or 369 lbs.
 - Fiberglass woven roving 18 oz per square yard: 500 square yard or 563 lbs.
 - Polyester non-thixotropic laminating resin with catalyst for fiberglass planking: 300 lbs. or approximately 33 gallons
 - Polyester laminating resin with catalyst: 1700 lbs. or approximately 189 gallons
 - Foam for formers, 1" thick PVC or comparable: 400 sq. ft.
- (*) Includes material for making top hat stiffeners using fiberglass planking.

HULL LAMINATE MATERIAL ESTIMATE - FOAM SANDWICH METHOD

- Foam material (PVC) 5/8" thick or comparable: 345 sq. ft.
- Foam material (PVC) 3/4" thick or comparable: 335 sq. ft.
- Foam for formers, 1" thick PVC or comparable: 400 sq. ft.
- Fiberglass mat 1 oz per square foot: 4800 sq. ft. or 300 lbs.
- Fiberglass woven roving 18 oz per square yard: 510 lbs. or 440 sq. yds.
- Polyester resin with catalyst: 1400 pounds or approx. 156 gallons

Sea Angler-Plywood Bill of Materials

The following list of materials is intended to be a general guide only. Before ordering any materials, the text and plans should be checked for possible options. All lumber listed as 1" stock is to be standard "lumberyard four-quarter" material which when finished may vary to somewhat less or slightly more than 3/4" in thickness, unless specified as NET. All widths are NET and all lengths allow for cutting to fit. Grouping lumber and purchasing random-random material to resaw to the required size will result in considerable savings. All lumber used should be first grade free from shakes and knots. Although oak (white oak), Sitka spruce, and mahogany (African, Honduras, or Phillipine-dark red varieties) are called out in the listing, lumber typical to the locale and of similar types and weights may be substituted. Long-leaf yellow pine is a good substitute for oak. All plywood (PW) is to be marine (MAR) or exterior (EXT) grade. The marine-type is preferable as the inner cores are solid and thus the panel has more structural integrity. Douglas-fir (DF) is satisfactory with the quality of the exposed faces of the veneer being designated by the letters "A" or "B". The "AA" grade panels are always preferable, however, "AB" grade is acceptable. All plywood should be a minimum of three plies. All fastenings should be bronze or hot dipped galvanized ferrous metal. Brass fastenings are not advised nor are the electroplated screws commonly sold in hardware stores. All screws are to be of the flat head type intended for wood. All nails are of the ring-type nail common to boat construction. Unless otherwise specified, all wood-to-wood joints are to be glued with a waterproof or highly water resistant glue such as plastic resin, resorcinol, epoxy, or other equivalent type used per the manufacturer's instructions regarding temperature, clamping requirements, curing time, and mixing method.

CHECK ALL SIZES TO THE WORK PRIOR TO CUTTING. Abbreviations used are: Mahog = mahogany; SP = Sitka spruce; DF = Douglas-fir; PW=plywood; Ext=exterior; MAR=marine.

ITEM	MATERIAL	NO. PCS.	SIZE
LUMBER:			
Frame/deck beam members	Mahog, DF or Oak	2" random-random material in as wide widths as possible with some widths to 12" minimum - 410 bd. ft.	
Keel	Mahog, DF or Oak	4	1" x 6" x 26'

Chine logs	Mahog, DF or Oak	2	2" x 4" x 34'
Bottom battens	Mahog, DF or Oak	8 4 4	1" x 3" x 30' 1" x 3" x 28' 1" x 3" x 26'
Side battens	Mahog, DF or Oak	8 2	1-1/4" x 1-1/4" x 36' 1-1/4" x 1-1/4" x 30'
Aft sheer clamp	Mahog, DF or Oak	4	1-1/4" x 2-1/2" x 13'
Raised forward sheer clamp	Mahog, DF or Oak	6 4	1" x 2-1/2" x 30' 1" x 2-1/2" x 12'
Aft lower carling	Mahog, DF or Oak	2	2" x 4" x 13'
Raised forward carling	Mahog, DF or Oak	2	2" x 10" x 18'
Cabin clamp	Mahog, DF or Oak	2	1-1/2" net x 12" x 18'
Strongbacks/deck battens	Mahog, DF or Oak	1 2 2 4 2	2" x 3" x 12' 2" x 3" x 10' 2" x 3" x 9' 2" x 3" x 8' 2" x 2" x 6'
Skeg	Mahog, DF or Oak	1	3" net x 12" x 15'
Rub rail	Mahog, Oak or teak	2	1" x 2" x 39'
Spray strake (makes two)	Mahog, Oak or teak	1	2" x 3" x 20'
Motor stringers	Mahog, DF or Oak	8	2" x 10" x 10'
Motor stringer blocking (makes all)	Mahog, DF or Oak	2	2" net x 2" net x 10'
PLYWOOD:			
Bottom planking	DF MAR AA	1400 sq. ft (*) 1/4" thick	
Side planking	DF MAR AA	700 sq. ft (*) 3/8" thick	
Transom	DF Ext AB	2	3/4" x 5' x 12'
Stem/breasthook	DF Ext AB	2	3/4" x 4' x 8'
Gussets/floor timbers	DF Ext AB	5	3/4" x 4' x 8'

Bulkheads	DF Ext AB	8	3/4" x 4' x 8'
Decking	DF Ext AB	3	3/4" x 4' x 8'
		1	3/4" x 4' x 10'**
		2	3/4" x 4' x 12'**

(*)NOTE: Use 10' panels on bottom abaft amidships if junctions are not desired in planking strips. Use 8' panels for side planking strips. Solid wood veneers optional; see text.

**4' x 8' sheets can be substituted for longer sheets in all cases. Adjust quantities accordingly.

FASTENINGS:

Screws: Flathead wood type, bronze or hot dipped galvanized

- 1-1/2" #8 - 2 gross
- 2" #10 - 14 gross
- 3" #14 - 4 gross
- 3-1/2" #18 - 4 dozen

Nails: Ring type boat nails, bronze or Monel

- 1-1/4" - 1 pound
- 1-1/2" - 4 pounds
- 2" - 8 pounds

Carriage Bolts: Carriage Bolts: Bronze or hot dipped galvanized complete with nuts and washers. Check lengths to work.

- 1/4" - 200
- 5/16" - 84
- 3/8" - 80
- 1/2" - 10

Glue: Epoxy - 5 gallons