

Jack Tar-Fiberglass Bill of Materials

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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", 12" wide x lineal feet: 600'
- Fiberglass mat 1 oz per square foot: 3920 square feet or 245 lbs.
- Fiberglass woven roving 18 oz per square foot: 3200 square feet or 400 lbs.
- Polyester non-thixotropic laminating resin with catalyst for fiberglass planking: Initial coating - 240 lbs. or approximately 24 gallons
- Polyester laminating resin with catalyst - 1500 lbs. or approximately 3 drums (55 gal. size)

HULL LAMINATE MATERIAL ESTIMATE - FOAM SANDWICH METHOD:

- Foam material (PVC) 5/8" thick x 3' x 6': 32 sheets
- Fiberglass mat 1 oz per square foot: 3600 square feet or 225 lbs.
- Fiberglass woven roving 18 oz per square foot: 370 lbs. or 2960 sq. ft.
- Polyester resin with catalyst: 3 drums (55 gal. size) or approximately 1500 lbs. net

Jack Tar-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), 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:			
Frames/floor timbers	Mahog, Oak or DF	250 r-r* bd	ft 2" stock at least 6" in width with some widths up to 12"
Deck beams/deck	Mahog, Oak or DF	100 r-r* bd	ft 2" stock at least 5" in width with some widths up to 9"
Stem	Mahog, Oak or DF	40 r-r* bd	ft 1-1/4" stock, 12" min. wide
Skeg/deadwood	Mahog, Oak or DF	150 lin. ft.	2" x 6" stock

Keel	Mahog, Oak or DF	1 1	2" x 6" x 24'** 1-1/4" x 6" x 24'**
Chine logs	Mahog, Oak or DF	2	1-1/4" net x 3" x 30'**
Bottom battens	Mahog, Oak or DF	8	1-1/2" x 28'
Motor stringers	Mahog, Oak or DF	2	2" x 8" x 12'
Pillow block brace	Mahog, Oak or DF	1	2" x 6" x 2'
Side planking batten	Mahog, Oak or DF	2	1-1/4" x 3" x 32'**
Sheer clamp	Mahog, Oak or DF	4	1-1/4" x 2" x 32'**
Bulwark cleats	Mahog, Oak or DF	1-1/4" stock sawn to shape, pieced as required	
Bulwark clamp	Mahog, Oak or DF	2	1-1/4" x 2" x 16'
Deck battens/strongbacks	Mahog, Oak or DF	2 2 3 2	1-1/4" x 2" x 10' 1-1/4" x 2" x 11' 1-1/4" x 2" x 9' 1-1/4" x 2" x 7'
Carlings	Mahog, Oak or DF	2	2" x 6" x 20'
Stem cap	Mahog, Oak or teak	2	1" x 2" x 32'
Spray rail	Mahog, Oak or teak	2	1" x 2" x 30'
Sheer rub rail	Mahog, Oak or teak	2	1-1/4" x 2" x 32'
Guards	Mahog, Oak or teak	2	2" x 3" x 10'

PLYWOOD:

Side planking	DF MAR AA	4	1/2" x 4' x 16'****
Bottom planking	DF MAR AA	4 16	3/8" x 5' x 10'**** 3/8" x 4' x 8'
Bulwark	DF MAR AA	1 1	1/2" x 4' x 10'**** 1/2" x 4' x 8'
Transom	DF MAR AA	1	3/4" x 4' x 10'****
Stem laminations	DF Ext AB	2	3/8" x 4' x 8'
Breasthooks, frame #9 floor timber, gussets	DF Ext AB	2	3/4" x 4' x 8'
Structural bulkheads	DF Ext AB	6	3/4" x 4' x 10'****
Decking	DF Ext AB	3 1	3/4" x 4' x 8' 3/4" x 4' x 12'****

* All random-random (r-r) is material of varying lengths and widths, the widest possible widths being desirable.

**See instructions for options.

***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" #8 - 1 gross
- 1-1/4" #8 - 8 gross
- 1-1/2" #8 - 16 gross
- 2" #10 - 6 gross
- 3" #14 - 4 gross

Nails: Ring type boat nails, bronze or Monel

- 1-1/4" - 6 pounds

Carriage Bolts: Bronze or hot dipped galvanized complete with nuts and washers. Threaded rod can be used optionally and jamming with nuts.

IMPORTANT: All lengths must be checked to work. See instructions for options.

Glue: Epoxy - 3 gallons