

MATERIALS LIST AND AREAS OF PANELS WITH
CONSTRUCTION SPECIFICATIONS
FOR THE

CHEETAH 8M CATAMARAN

Cheetah 8 m Areas of panels.

ITEM	AREA	PANEL
BULKHEADS	m2	Numbers refer to list of panels
2*FORD TUBE	0.60	2
2*ANCHOR LKR	1.10	2
2*WATERTIGHT	0.56	2
2*BERTH FRD	1.56	2
2* MAIN BULKHD	2.24	2
2* BERTH AFT	1.14	2
2*AFT BULKHD	2.66	2
2*TRANSOM	1.02	2
BRIDGE DECK		
MAIN BEAM	1.66	2
B/DECK UNDERSIDE	5.38	2
FOOTWELL	1.91	2
B/DECK TOP	7.30	2
FRD FAIRING	5.89	2
HORIZ SURFACES		
2*BERTH FORD	2.88	2
2*BERTH AFT	4.20	2
2*VANITY TOP FRD	0.40	4 Alt. 4 mm plv
VANITY TOP AFT	0.20	4 Alt. 6 mm ply
CHART TOP	0.58	4 Alt. 6 mm ply
GALLEY TOP	0.45	5
SEAT TOP STBD	0.50	2
SEAT TOPS PORT	1.37	2
ANCHOR LKR BASE	0.2	2
FRONTS		
2*LKR FRNT	1.2	3
HNG LKR	0.4	1
2*FRD VANITY FRNT	1.0	3
VANITY FRNT&SIDE	0.45	3
STBD SEAT FRNT	0.42	1
PORT SEAT FRNTS	0.92	1
GALLEY FRNT &SIDES	0.75	1
CHART FRNT & SIDES	1.0	3
2*O/HD LKR F&S	2.0	3
LARGE COMPONENTS		
2*HULL	36.6	See Construction drawing
2*DECK	50.2	See Construction drawing
LID	6.9	2
2*KEEL	3.8	See Construction drawing

Cheetah 8 M construction panels.

Panel Number ref. area list	Laminate or ply construction	Connection
1	1 x 36OWR / 12mm Airex / 2x290 WR	3
2	2 x 290 WR / 12mm Airex / 2 x 290 WR Or 1x 600Biax / 12mm Airex / 1x 600Biax	4
3	1 x 290 WR / 12mm Airex / 1 x 290 WR	1
4	3 mm ply top 10 foam core 360 WR glass under	3
5	6mm ply with formica glued on.	3

Hull and decks must be built in
1 x 600 Biax / 12mm Airex / 1 x 600 Biax

To calculate the areas

Note. The vanity units and chart table etc. can be built in 4 mm ply instead of foam sandwich.

Foam is Airex R 63.80 for hulls below the knuckle and the underside of the bridgedeck and beam fairings. And Divinycel H80 above the knuckle and all of the deck areas. Ply replaces foam in way of all fittings. Core-Cell A-500 can be used instead of Divinycel. The hulls can be strip planked in Core-Cell A-500.

There is extra reinforcing in way of bolts and chainplates. Also in the hulls in way of the cross beams and daggerboard case.

Carbon fibre required for the top and bottom flanges of the main crossbeam. = 75 metres of 100 mm wide 300 gms/m² . unidirectional Carbon Fibre. 12000 fillament tow. Cortaulds X-AS or similar.

The materials required for glassing the panels should be taken from the list of areas, and the panel specifications. Cross check to the construction drawings. The panels specification shows an example of a laminate for each panel. For your local area, you may not be able to obtain the exact material specified. If that is the case, use a combination of materials to arrive as closely as possible to the same total weight of glass on each side of the panel, with the same fibre orientation. In all cases on the bulkheads and hull, but not in the top and bottom flanges of the cross beams, Unidirectional Glass may be substituted by Biaxial or Double Bias cloth. Provided

that the total weight of glass is the same in the end, and that there is an equal amount of glass in both directions.

LAMINATING KEY. (Preliminary)

WR = Woven Rovings or 4 harness satin, 50:50 warp/weft.

UDWR = Unidirectional Woven Rovings. Minimum 9.8:0.2 warp/weft.

Carbon = Carbon Fibre unidirectional tape as SP AC series carbon tapes or similar. Carbon to conform to Courtaulds type XA-S as minimum Spec.

e.g. of laminate specs on drawings.

200 WR = 200 gms/m² woven rovings E glass fibre.

Please note, the joining edges of all Woven Rovings and Satin weaves must be overlapped by 30mm minimum per layer. Unidirectionals are butted along the fibre direction, and overlapped 50 mm minimum anywhere where the fibres are being joined.

Resin = SP Epoxy laminating resin or similar. Note all laminates to be post cured to manufacturers specifications, to achieve maximum laminate properties.

Or use a high quality marine grade polyester resin. Isophthalic resin preferred.

In all cases, the surface of the foam shall be filled with a runny mix of resin and microballoons, just prior to laminating. The foam will either be vacuumed to the laminate, or laminating shall be done before this surface filler has gone off'. The runny mix is trowelled into the surface with a plasterers float (or similar) thereby forcing the mix into the cells of the foam.

Note: The extra glass shown on the construction drawings is only on the inside skin of the hulls, unless otherwise specified.

The extra glass inside the hull in way of the keel continues straight down into, and through the keel. The basic keel laminate is the same as the hull laminate.