**Material List**

- **Wood or Second grade plywood**: 16mm, 12 sheets
- **Foam**: 10mm, 75kg/cu m (standard density), 36 sheets (sheet size 2170x1220)
- **Foam**: 15mm, 130kg/cu m (high density), 4 sheets (sheet size 2170x1220)
- **Fibrelast**: 400gsm, BIAxIAL CLOTH (1200mm WIDE)
- **400gsm DOUBLE BIAS TAPE (1000mm WIDE)**
- **400gsm DOUBLE BIAS TAPE (600mm WIDE)**
- **500gsm UNIDIRECTIONAL CLOTH (1200mm WIDE)**
- **750gsm TRIAXIAL CLOTH (1200mm WIDE)**
- **Resin**: Polyester, Vinyl ester or Epoxy, 210 litres
- **Filling powder**: 20 kg
- **Sanding filler**: 5 kg
- **Lexan for windows**: 6mm thick tinted, 2,500 x 600
- **Point - High build undercoat**: Preferably 2 part polyurethane, Approx 12-16 litres
- **Point - Glass top coat**: Preferably 2 part polyurethane, Approx 12 litres
- **Folding system**: Laser cut aluminium 5083 Alloy, H321 Temper (allow approx $1300 AUD), 5083 Alloy 15 Temper (allow approx $100 AUD)
- **Pivot pin**: For backing plates, 2 in metres
- **Sizaflex sealant**: 2 cylinders
- **Various fabricated & standard fittings**: (eg. Ronstan)
- **Various nuts, bolts & screws**

**Consumables**
- Gloves
- Paper towels
- Mixing jugs & cups
- Measuring pumps for epoxy
- Mixing sticks
- Solvent for cleaning - acetone for polyester or vinyl ester, white vinegar for epoxy
- Brushes
- Sanding disc
- Sand paper
- Gyproc (dry wall) screws (for temporary assembly)

**Tools Required**
- Jig Saw
- Drill & Drill bits (best to have both mains power and cordless)
- Various hole saws
- 100mm Angle Grinder
- Rubber backed sanding disk for grinder
- Random Orbital Sander (prefer 150mm dia)
- Files & Ream
- Ruler
- Mitre cutting tool
- Plastic Gyproc filler spreaders work well
- Several chisels
- Gouges (sometimes called a box cutter)
- Screwdriver
- Laminating tables: 3 sheets 16mm plywood (second grade) covered with plastic. May be supported on sawhorses.
- Saw horses: Standard saw horses or the folding clamping cheapies. (The legs can be shortened if required)
<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAIN HULL COMPONENTS</strong></td>
<td></td>
</tr>
<tr>
<td>HULL PANELS 8</td>
<td>6mm Ply covered with 300µm double bias glass cloth</td>
</tr>
<tr>
<td>HULL HEADS</td>
<td>6mm Ply (uncovered)</td>
</tr>
<tr>
<td>BULWARKS</td>
<td>6mm Ply (uncovered)</td>
</tr>
<tr>
<td>DECK</td>
<td>6mm Ply covered with 300µm double bias glass cloth</td>
</tr>
<tr>
<td>BOTTOM PANELS #1</td>
<td>2 extra layers of 300µm double bias glass cloth</td>
</tr>
<tr>
<td><strong>FLOAT HULLS</strong></td>
<td></td>
</tr>
<tr>
<td>HULL PANELS 8</td>
<td>6mm Ply covered with 300µm double bias glass cloth</td>
</tr>
<tr>
<td>BULWARKS 2 &amp; 5</td>
<td>6mm Ply (uncovered)</td>
</tr>
<tr>
<td>BULWARKS 44,48</td>
<td>6mm Ply filled &amp; taped to hull panels both sides</td>
</tr>
<tr>
<td>BULKHEADS 44,48, 8A &amp; 8B</td>
<td>6mm Ply filled &amp; taped to hull panels both sides</td>
</tr>
<tr>
<td>BULKHEADS 8A &amp; 8B</td>
<td>6mm Ply filled &amp; taped to hull</td>
</tr>
<tr>
<td>DECK</td>
<td>6mm Ply covered with 300µm double bias glass cloth</td>
</tr>
<tr>
<td>BOTTOM PANEL #2</td>
<td>2 extra layers of 300µm double bias glass cloth</td>
</tr>
<tr>
<td><strong>COCKPIT SPAT RISERS</strong></td>
<td></td>
</tr>
<tr>
<td>COCKPIT SPAT RISERS</td>
<td>6mm Ply covered with 300µm double bias glass cloth</td>
</tr>
<tr>
<td>PENNANT RISERS</td>
<td>6mm Ply (uncovered)</td>
</tr>
<tr>
<td>TACKLING RISERS</td>
<td>6mm Ply (uncovered)</td>
</tr>
<tr>
<td><strong>BUNKER BOARD</strong></td>
<td></td>
</tr>
<tr>
<td>BUNKER BOARD</td>
<td>6mm Ply covered with 300µm double bias glass cloth</td>
</tr>
<tr>
<td><strong>STERN FINS</strong></td>
<td></td>
</tr>
<tr>
<td>STERN FINS</td>
<td>6mm Ply covered with 300µm double bias glass cloth</td>
</tr>
<tr>
<td><strong>HATCH</strong></td>
<td></td>
</tr>
<tr>
<td>HATCH</td>
<td>6mm Ply covered with 300µm double bias glass cloth</td>
</tr>
<tr>
<td><strong>PANNING</strong></td>
<td></td>
</tr>
<tr>
<td>PANNING</td>
<td>6mm Ply covered with 300µm double bias glass cloth</td>
</tr>
<tr>
<td><strong>BOMBSHELL SIDE</strong></td>
<td></td>
</tr>
<tr>
<td>BOMBSHELL SIDE</td>
<td>6mm Ply covered with 300µm double bias glass cloth</td>
</tr>
<tr>
<td><strong>TANK</strong></td>
<td></td>
</tr>
<tr>
<td>TANK</td>
<td>6mm Ply covered with 300µm double bias glass cloth</td>
</tr>
</tbody>
</table>

**Plywood Details & Material List**

- **MDI or Second Grade Plywood**: 10mm, 12 sheets
- **Plywood**: 6mm Okoume (Doume) or Pacific Maple, 34 sheets (sheet size 2400 x 1200)
- **Plywood**: 9mm Okoume (Doume) or Pacific Maple, 4 sheets (sheet size 2400 x 1200)
- **Plywood**: 12mm Okoume (Doume) or Pacific Maple, 4 sheets (sheet size 2400 x 1200)

**Fireglass**
- 300µm Biaxial Glass Cloth (1200mm x 1000mm)
- 185 in metres
- 400µm Double Bias Tape (1000mm wide)
- 420 in metres
- 400µm Double Bias Tape (1200mm wide)
- 5 in metres
- 600µm Double Bias Tape (1200mm wide)
- 10 in metres
- 900µm UNIDIRECTIONAL CLOTH (1200mm wide)
- 15 in metres
- 750µm TRIAxis Cloth (1200mm wide)
- 10 in metres

**Fasten**
- 200 in metres
- 200 litres

**Filling powder**
- 20 kg

**Sandable filler**
- 5 g

**Leather for windows**
- 6mm thick leather
- 700 x 600

**Paint** - High build undercoat
- Preferably 2 parts polyurethane
- Approx. 17-18 litres

**Paint** - Top coat
- Preferably 2 parts polyurethane
- Approx. 13 litres

**Rivets**
- 6081 Alloy 76 rivets
- 1000 (approx. $120 AUD)

**Aluminium Flat bar 25mm x 6mm**
- For backing plates
- 2 in metres

**Skelpex seat**
- 2 cylinders

**Various fabricated & standard fittings**
- eg: Hinges

**Various nuts, bolts & screws**

**Consumables**
- Covers
- Paper towels
- Wiring jugs & caps
- Measuring surr for epoxy
- Mixing sticks
- Solvent for cleaning - acetone for polyester or vinyl
- Brake
- Sanding discs
- Sand paper
- Gypsonix (dry wall) screws (for temporary assembly)

**Tools Required**
- Jig Saw
- Drill & drill bits
- Ramp to have both mains power and cordless
- Several rolls of 150mm Angle Grinder
- Rubber backed sanding disk for grinder
- Diamond cutting disks for angle grinder
- For cutting thick fiberglass eg thinning beam Ranges
- Random Orbital Sander (pref. 150mm dia)
- Files & Rods
- Rule
- 8 metre measuring tape
- Level
- Filling tapes
- May be home made or modified putty knives or plasterer's tools.
- Finer grit
- Spreader (for filling compound)
- Plastic Gypsonix screwdriver works well
- Several others
- Stanley knife (sometimes called a box cutter)
- Scissors
- Laminating bales
- 3 sheets 16mm plywood (second grade) covered with plastic. May be supported on sawhorses.
- Saw horses
- Diamond saw horses or the flying climbing chimneys. (The legs can be shortened if required)

**Material List S650-PLY**

**Team Scarab**

**Scarab 650 Sport**

**Detailing**

**PHOTO0001.jpg**

**Date: 11/05/2021**

**Title: Plywood Details & Material List**

**Scale: Not to Scale**

**Scale: 1:8:4 at Drawing by 1:4.146 to OSMPH as 5:20**

**M5 279 4142 66 ATX" PHONE 02785125"