

## **TECHNICAL SPECIFICATIONS FOR INTERIOR WORKS**

### **1. Materials**

#### **1.1 Quality**

All materials used in the works shall be of their respective kinds as specified herein, obtained from sources and suppliers approved by the Architects and shall comply strictly with the tests prescribed hereafter, or where tests are not laid down in the specifications, with the requirements of the latest issues of the relevant Indian Standards.

#### **1.2 Sampling and Testing**

All materials used in the works shall be subjected to inspection and test certificates of all materials from the company proposed to be incorporated in permanent works shall be submitted to the Architect for approval before they are brought to the site.

#### **1.3 Rejection**

Any materials that have not been found to conform to the specifications will be rejected forthwith and shall be removed from the site by the Contractor at his won cost.

### **2. Workmanship**

All works shall be true to level plumb and square and the corners, edges, etc. in all cases shall be unbroken and neat.

### **3. Finishing work**

Painting with plastic emulsion paint shall be as per CPWD Specifications 1977 and IS:5411 – 1969. Paint shall be approved manufacture and brand for execution of such work.

### **4. Carpentry**

#### **4.1 Protection**

All timber shall treated with preservatives before delivery to site. While remaining in proper wrapper timber shall be protected from extremes of temperatures and direct sunlight. Timber shall be softwood or hardwood and suitable for the purpose for which it is intended. It shall be seasoned, free of defects which would affect strength or usability and shall be flat, straight, non splitting and dressed on all sides. The carpentry timber shall be fixed with nails, spikes, bolts, screws, hangers, stirrups, anchors, ties or any other accessories which are suitable to develop the full strength of the member which they support to which they are supported to which they are attached, as directed.

#### **4.2 Fixing**

Carpentry timber where fixed to solid masonry or concrete shall be secured with Dash fastener or other positive methods of mechanical fastening.

#### **4.3 Fastenings**

Power driven fasteners may be used for fastening to steel, concrete and brick masonry.

#### 4.4 **Protection and Retardant**

All the timber used shall be kiln seasoned. Fire retardant paint shall be used on the hidden surface wherever specified and wood preservative paint shall also be provided.

#### 4.5 **Woods**

It shall mean First class CP teakwood.

#### 4.6 **Ply – woods**

a) Plywood shall be best quality close grained plywood suitable for veneering, painting or bonding plastic laminate. It shall be a phenol bonded, boiling water resistant (BWR) brand. Exposed edges shall be finished with an edge strip of solid teakwood, tongued and grooved and glued, or as detailed.

b) The manufacturer and reference for plywood shall be subject to approval. The thickness shall be in accordance with the drawings.

### 5. **Joinery**

5.1 Where joints are not specifically indicated recognized forms of joints shall be used. Joinery shall conform to IS Standards. Where no dimensions are specified or shown on drawing the Contractors shall space fixing battens, fill etc. grounds, studs and the like, in accordance with the recommendations of the manufacturer of the sheets being fixed.

#### 5.2 **Fastenings**

Screws, nails etc. shall be standard iron or wire unless otherwise shown on drawings. Screws and nails for outdoor furniture shall be of brass or other non – corrosive metal. Exposed fastenings shall match the finish of the hardware. Where screws show on a finished surface, they shall unless otherwise detailed, be sunk and the hole plugged with a wood plug of the same wood and grain of the finished surfaces. Nails on finished surfaces shall be neatly punched and the hole filled with wood filler to match.

#### 5.3 **Hardware**

Hinges, locks, latches, door tracks, nail hides, etc., be as specified or an approved substitute.

#### 5.4 **Metal**

Whenever MS pipes are bent at Ninety degree or any other specified angle the pipe shall be filled with fine sand and heat bend, as per BIS specification. All welding shall be proper butt welding with perfect grinding for smoothness, surface and profile consistency. All legs of furniture, whether of wood or metal shall be equipped with nylon glides or cabinet furniture shall be treated with an approved brand of wood preservative. For all timber (door frame, lipping, mouldings, beadings, architrave's and any other exposed timber surfaces) the finish shall be Nerolac wonder wood polyurethane wood finish as per manufacturers specification and recommendation.

## 6. Grid Ceiling (Gypsum anhydrous Ceiling)

The false ceiling mainly will be consisting of 2' – 0" x 2' – 0" grid system. To avoid partial grid (less than 2' – 0" x 2' – 0") at the ends, a band of uniform size Gypsum Board false ceiling may be provided along the periphery. The size of the Gypsum board band may be decided by the Consultant after preparing the false ceiling plan.

## 7. Mirror

- 7.1 The contractor shall submit samples or mirror for approval. All mirror shall be 6 mm thick best quality unless stated otherwise.
- 7.2 All edges of mirror shall be polished with beveled corner mitres of IS Specification, wherever it is indicated in the drawing.
- 7.3 All drilling of holes shall be carried out at the stage of fabrication. No chipping, starring and other visible imperfections around holes shall be accepted.

## 8. Windows

- 8.1 All windows, ventilators are to be made from ISI marked M.S members.
- 8.2 All glasses will be similar thick as in the existing window panes and fixed by means of fixing chips and gold size glass putty as approved by the Architect.
- 8.3 Construction : the window units shall be factory built to precession, dimensional accuracy and strength.
  - 8.3.1 The outer frame shall be inter fitted together by mechanical means of best fabrication technique. The sill corners of the frame shall be applied with suitable sealant for water tightness.
  - 8.3.2 The interlocking members shall be accurately manufactured to close tolerances to ensure tight fit of the mating interlock profiles.
  - 8.3.3 There shall be minimum gap between shutter and frame to facilitate easy and smooth movement of the shutter.

### 8.4 Installation

Installation of the windows shall be in accordance with the instructions of the Architects. The window units shall be accurately aligned and anchored firmly. It shall be ensured that the sash/shutters slide smoothly in channels/tracks. The entire window unit shall be cleaned free of dust, cement, paint etc. after completing installation.

- 9. General Specification in case of "Cabinet" furniture
  - 9.1 **Timber** : All timber used to be of medium quality C.P. teak free from knots, shakes, ormholes and with a moisture content not more than 12% certificate is to be produced.
  - 9.2 **Joints** : All joints will be standard, mortice and tenon, dovetail, dowel, cross halved, mitred, tongues and grooved and rebate. Nailed or glued butt joints will not be permitted.

- 9.3 **Fasteners** : Screws, nails bolts will generally be iron or wire except in the following examples. "Outdoor furniture" fastenings will be of brass or other non – corrosive metal. In Hardware they will match the finish of the hardware item. Nails in a finished surface shall be neatly punched and the hole filled with wood filler matching the finish. Screws in a finished surface will be round head, raised head or sunk beneath the surface and the hole plugged with matching colour and grain of the wood surface, unless specially detailed.
- 9.4 **Plywood** : Used mainly for the bodywork in this furniture, shall be Luan or similar close grained plywood suitable for veneering, painting or bounding plastic laminate. It will be a phenol bonded, BWP brand. Exposed edges will be finished with a piece of solid wood tongued and grooved and glue or as detailed.
- 9.5 **Hardware** : Hinges, locks, latches, door, tracks, etc. shall be as specified and as far as possible by the manufacture specified. In any variation of this the quality of the substitute shall be equal to or better than the original for prior approval.
- 9.6 **Metal** : Where mettallongs frames etc. are used these shall be welded brazed, bolted or riveted as required and on finished surfaces, welding, brazing and riveting shall be neatly smoothed so that no evidence of this is apparent on the final finish of the metal which will be as specified on drawing. On all logs, wood, or metal nylon glides or castors as indicated are to be installed.
- 9.7 **Finish** : This will be as indicated on the drawing and colour scheme chart and materials timber, plastic, laminates, lacquer paints etc. Must be specified and no variation will be accepted unless with the prior approval of the Engineer. Backs of Cabinets etc., where wall hung shall be treated with an approved brand of wood preservative. Full size drawings or samples prototypes are to be submitted for approval if requested.

Note : This specification is of a general type only and must be used in conjunction with the drawing of the particular item being made. Anything shown on the drawing, but not the specification must be complied with and vice versa.