LRSI

LALA RAM SARUP INSTITUTE OF TUBERCULOSIS & RESPIRATORY DISEASES, NEW DELHI

Tender

For

Supply of Furniture for Private Ward at LRS Institute of Tuberculosis & Respiratory Diseases New Delhi.

Volume-III

Technical Specifications

JANUARY 2012

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PQ tender No. HSCC/LRSI/PG-1/106/FUR/2012

A	For Each Room per patient
1	**Patient bed with facilities for head raise, provided with wheels for safe transfer I/v Line stand facility**

Frame: Rectangular tubular welded construction and bows of round tubular welded construction.

Top : Two section top made from perforated CRCA sheet.

Rubber Shoe : Good quality rubber shoes reinforced with steel washer inside bottom of the shoes for durability.

Dimension: Overall length 2060 (L) X900(W)X 600(H) mm suitable for mattress width of 900mm. Sleeping level 600mm. Head end bows height 1060mm 3 leg end bow height 820 with laminated handles. Arrangement for detachable mosquito net rods.

Material Used: CRCA SHEETS: Two section top of 18G IS-513 D quality. Bow bracket 12G CRCA sheet. Handle wound bracket adjustment. RECTANGULR TUBES: For outer frame, 60x30x16G thickness and horizontal transverse member 19x3 8x 16G backrest horizontal member 50x25x16G. ROUND TUBES: For bows outer member 31.7 Dia x 18G horizontal transverse member 25.4x18G.
Test : As per IS-4033-1968 and also performance tested under a load of 200 Kgs. (uniformly) distributed and kept on the two sections top for a period of two hours and removed thereafter. Measurement of the bed frame from ground level to the top of the sleeping surface is taken before and after applying the load.

Observation: No plastic deformation of the bed shall take place i.e. bed will come back to its original dimension within (+ ,-) 5mm tolerance.

Finish : Pretreated and epoxy powder coating of 60 microns thickness.

2	**steel stool**

SEAT ASSEMBLY: The seat is made up of 1.2 cm thick Commercial Grade plywood with moulded Polyurethane foam and are upholstered with replaceable fabric covers. The upholstery is available in Leather cloth and Fabric.

SEAT SIZE: Diameter 40.0 cm

ADJUSTMENTS: 360 Degree Revolving type

BACK ASSEMBLY (available with S1M4HC / S1M4NC model): The back foam is designed with contoured Lumbar support for extra comfort. The upholstery is available in Leather cloth and Fabric.

BACK SIZE: 45.0 cm (W) covered with U foam.

POLYURETHANE FOAM: The polyurethane foam is moulded with density = 45 +/-2 kg/m3 and Hardness 20 +/-2 on Hampden machine at 25% compression.

HEIGHT ADJUSTMENT: The manual height adjustment is very easy to operate with a help of a knob. It can be easily locked at the most comfortable position.

PEDESTAL ASSEMBLY (FOR S1MXHC/ S1M4HC): The five-prong pedestal is fabricated from 0.2cm. thick CR steel, powder coated and fitted with an injection moulded black Polypropylene Hub Cap and 5 nos. twin wheel castors. (Castor wheel diameter 5.0cm.) The pedestal is 55.0cm pitch-circle diameter (65.0 cm with castors). Circular foot ring of dia. 520 mm made from 19 mm dia. MS ERW Tube for foot support in High-base stool.

PEDESTAL ASSEMBLY (FOR S1MXNC/ S1M4NC): The five-prong pedestal is fabricated from 0.2cm. Thick CR steel, powder coated and fitted with an injection moulded black Polypropylene Hub Cap and 5 nos. twin wheel castors (Castor wheel diameter 5.0cm.). The pedestal is 55.0cm pitch-circle diameter (65.0 cm with Castors).

TWIN WHEEL CASTORS: The twin wheel castors are injection moulded in 30% Glass Filled black Nylon.

3	**Foot step (505 (L)x305(w)x230(h)**

Foot step

Overall approx step size: 505L x 305W x 230H mm.
Step made of CRCA sheet fitted with aluminium tread flats by pop rivets.
Frame made of 1" x 18G CRC tubes fitted with PVC stumps.
Finish: Pre-treated & Epoxy powder coated.

4	**Patient Drug cabinet / Bed Side Locker (450(L)x450(w)x750(H)**

The bed side locker shall generally confirm to IS-4266-1967, subject to following specifications

Frame:	Shall be according to 2.1 of IS-4033-1968. Body of sheet metal welded construction. Locker made from machine pressed CRCA sheet locker box with door & lock.
Top	Shall be according to 2.2(a) & 22(b) of IS-4033-1968. High impact, enclosed on three sides, having one box & one drawer plastic top with raised edges on three sides. Super imposed SS top. Super imposed SS top 04 Cr 18 Ni 10 or 07 Cr 18 Ni 9 of IS-6911-1972.

Castors	Mounted on 2 ball type 50 mm dia swiveling castors as per IS-4034-1979.
Shape & Dimension	Overall length 405mm X 405mm (W) X 810mm (H).
Material	Body, door & drawer made of 20 GSM CRCA sheet & top made of 24 GSS sheet, superimposed on plywood top of 12mm thickness.
Finish	:As per 5 of IS-4033-1963 & for top light finish passivated.

5	**Adjustable cardiac rest table.**

- Top 810 mm L x 352 mm W (approximate) with provision of adjustment.
- Two section laminated top.
- MS Square tubular telescopic stem with geared SS handle for height adjustment from approx. 760 to 1050mm.
- MS rectangular tubular base frame mounted on four castors, 50mm dia.

Pre-treated and epoxy powder coated.

6	**Comfort chair with arm rest**

Overall height 80 cm, overall width 550mm, over all depth 610mm, seat size 480 mm (W) x 440 mm (D) and back size 480 mm (W) x 460 mm (H), seat and back made up of 12 mm thick hot pressed plywood, upholstered with fabric and moulded Polyurethane foam with PVC lipping all around. The back foam is designed with contoured lumbar support for extra comfort. The Polyurethane foam is moulded with density = 45 +/-2 kg/m3 and Hardness = 20 +/- 2 on Hampden machine at 25% compression.

ARMRESTS: The armrest tops are injection moulded from black Polypropylene. They are fitted to tubular armrest supports made of Dia.2.54cm. (1") x 14 BG M.S. E.R.W. tube and black powder coated. The tubular armrest supports hold together the seat and back.

TUBULAR FRAME: The tubular frame is cantilever type & made of Dia.2.54cm.(1")x 14 BG M.S. E.R.W. tube and black powder coated.

7	Sliding curtain facility for patient isolation in "U" pattern

Ms tubular construction made of 19 mm x18 G in three section legs made made of 25 mm x18 G fitted with 50 mm dia castors middle span 1210 mm wide and side span 610 mm supplied with hooks and springs with curtain cloth finish pre treated and epoxy powder coated

8	Wall foldable board table

Table having an overall size of 900x600 X 600-750 with top made of 25 mm thick board pressed with 0.4mm thick membrane foil clad pressed with PU glue. The foil shall be precoated with a layer of polyurethane for better scratch resistance. The table shall have a former module having an overall size of 900x600 duly supported, laminated on both sides as per salient technical features, specification, drawing & direction of Engineer-In-Charge.
The table should have provision for folding.
The sample should be got approved from Engineer In charge.

9	Sofa cum bed with storage for patient attendant in private room

- High quality, comfortable Wooden sofa cum bed made by bed [Size 2010 mm L x 1200 mm W x 500 mH (sleep surface)]
- Box type Storage be provided.
- Provision be made to be used as sofa and as bed as per requirement.
- Matress of high density foam, upholstered with washable, anti microbial and durable fabric. Matress thickness 15 -cm.

Thick foam pillow of king size, durable and covered with high quality polyester fabric.

The sample should be got approved from Engineer In charge.

10	Wall cabinets on sides with lock (900x500x1200)

	
Having shelves and hanging arrangement for hanging cloths.• Should have locking arrangement	
13	**Vertical Veniation Blind/ Curtain**
	
1	**Center Table**
	
2	**Two beds with space box**
• A set of two Single beds for doctor's rest room with space box of sutable size for storage in between them. • High quality, comfortable metal bed [Size 2010 mmL x 1200 mmW x 500 mH (sleep surface)] for one bed • Frame of 20mm square MS tubes (legs) and 2x4cm section (for bed frame). Cross sectional thickness of tubes 1.5 mm • With head board and foot board.	

- Bed surface of MS sheet (22 SWG) welded to at least 3 cross pieces.
- Foot stumps of PVC / Hard Rubber
- All metal parts pretreated and epoxy coated.
- Matress of high density foam, upholstered with washable, anti microbial and durable fabric. Matress thickness 15cm.

Thick foam pillow of king size, durable and covered with high quality polyester fabric.

3	**One 2 seater sofa set**

The Sofa is a flexing-back lounge seating system standing on beam with side frame assemblies.

CONNECTING BEAM ASSEMBLY: It is a fabricated assembly made by welding MS. square pipe 6.0 cm. x 6.0 cm. x 10 BG. thick. to 0.5cm. thick HR. Steel plate on each side for fixing the moulded side frame assembly. The connecting beam assembly is black powder coated.

SEATREST ASSEMBLY: The seat rest assembly consists of a fabricated inner-frame assembly insitu-moulded with Polyurethane foam having density = 45 +/-2 Kg./cm3. The hardness of the P.U. foam = 23 -27 Kgs. on Hampden m/c. for 25% compression of the foam. The complete moulded seat rest assembly is covered with a replaceable fabric upholstery cover.

SEAT SIZE: 52.0cm. (W) X 50.0cm. (D) X 6.0cm. (T) Approx.

BACKREST ASSEMBLY: The backrest assembly is flexing type and consists of a fabricated inner-frame assembly insitu-moulded with Polyurethane foam having density = 45 +/-2 Kg./cm3. The hardness of the P.U. foam = 16 -20 Kgs. on Hampden m/c. for 25% compression of the foam. The complete moulded backrest assembly is covered with a replaceable fabric upholstery cover.

BACK SIZE: 52.0cm. (W) X 57.0cm. (H) X 12.0cm. (T) Approx.

SIDEFRAME (ARMREST) ASSEMBLY: The side frame assembly, which forms the armrest assembly, is fitted to the two ends of the connecting beam assly. to form the leg-cum-armrest assembly It consists of a fabricated inner-frame assembly insitu-moulded with Polyurethane foam having density = 45 +/-2 Kg./cm3. The hardness of the P.U. foam = 16 -20 Kgs. on Hampden m/c. for 25% compression of the foam. The complete moulded side frame assembly is covered with a replaceable fabric upholstery cover.

SIDEFRAME (ARMREST) SIZE: 63.0cm. (D) X 58.0cm. (H) X 12.0cm. (T) Approx.

ADJUSTABLE GLIDE: The adjustable glide is injection moulded in black ABS and is used for level adjustment of the sofa on uneven floor surface. It is fitted to the side frame assembly.

5	**Computer table**

Computer Table with 3 Drawers and provision for having shelves storing and for keeping CPU, UPS and key board tray : Size: 1200mm x 750mm x 750mm. 1" plywood top with 1 mm mica laminated with curved wooden beading all around top with pull out for keyboard, mouse and with 3 drawers.which runs with smooth movement.

	Notice Board

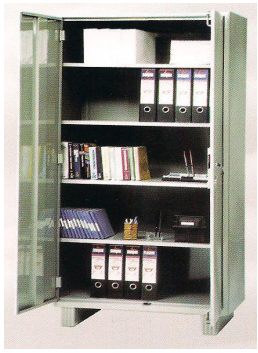
- Notice Board 4' x 2' .
- made up of thick 1 ½ "alluminium channels with channels with two sliding glass doors glass thickness 5mm.
- The inner portion is finished with soft material (Felt cloth) ½ "thickness covered with green cloth. Backside of the board is supported with 6mm thickness plywood with clamps for fixing
- pad lock arrangements for the doors for locking.

	For Nursing Station (Duty Room)
1	**Office table**

- Steel table Size: 1200mmW x 600mmD x 750mmH
- 3 Drawers on right side
- 3/4” top made from PLPB duly 2mm pvc edge banding .
- Table should be built on 1” x 1” 16 gauge ERW tubular pipe.

Pre-treated and powder coated.

3	**Steel almirah or wall mounted wooden cabinet with lock**



- Storage shelf 4 Nos. making five compartments.
- Sheet steel cupboard, epoxy powder coated.
- High quality, cold rolled, close annealed (CRCA) steel.
- Anticorrosion treated components, treated with seven steps of anti corrosion process
- Surface free from flaws, roll marks, dents, lines etc.
- Three way bolting device and six lever lock.
- Oven backed epoxy powder coating\
- Size: 1980 mmH x 915mmW x 485mmD (approx)
- Door sheet thickness: 0.9 mm.
- Rest body including Shelf sheet thickness: 0.8 mm
- With high quality hinges and overlapping doors and interlocking design.

Color Grey.

4	**Steel file cabinet with four drawers**

Steel filing cabinet made of 20-22G sheet with four drawers with single locking arrangement at the top. Size: 1375mmH x 700mmD x 470mmW. Drawer movement should be on rails with balls. Every drawer should be provided with name holder and good quality handle. Colour: Grey.

	X-Ray view box

X ray film illuminators (view box)
For 2 films upto 14”x17”.
The item should conform to appropriate National or International standard manufacturing practice & safety IS 7620.

D	**Sister I/C Room**
1	**Racks**

- Steel closed rack with four compartments. Size: 84” (H) x 36” (B) x 24” (D) (closed on three sides). With five shelves making four compartments. Rack shelves made up of 16G. CRCA sheet of size: 36” x 24” Mounted on MS Angle

of 45mm x 45mm of 5mm thickness with the ground clearness of 150mm. The three sides of the rack shall be closed with 20G CRCA sheet. Anti corrosion treated components & oven baked powder coating

2	**Steel table**

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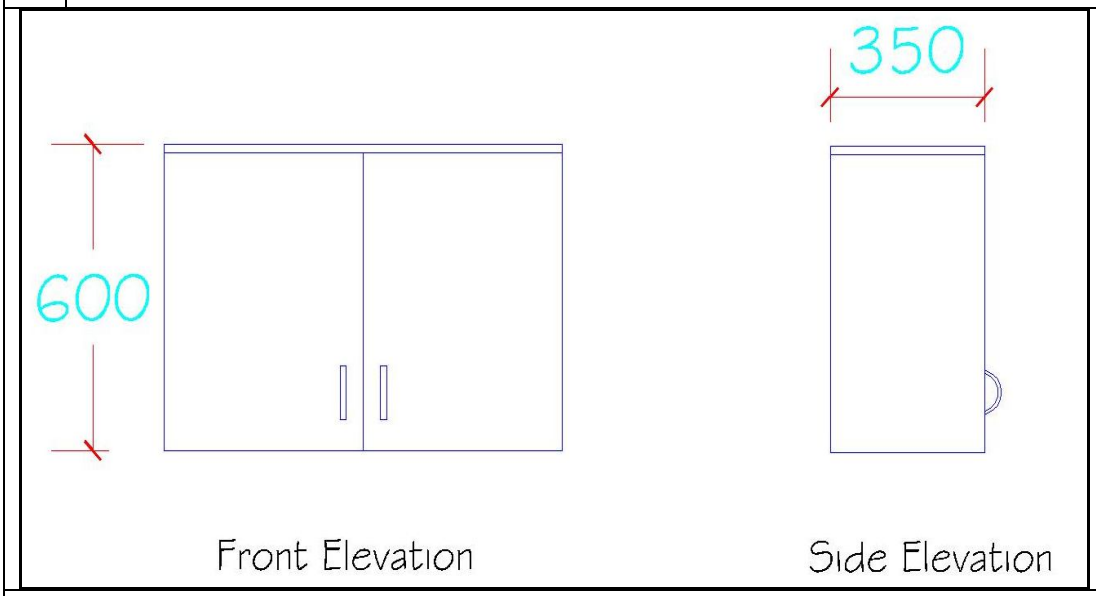
- Steel table Size: 1200mmW x 600mmD x 750mmH
- 3 Drawers on right side
- 3/4" top made from PLPB duly 2mm pvc edge banding .
- Table should be built on 1" x 1" 16 gauge ERW tubular pipe.

Pre-treated and powder coated.

4	**Wall Hung storage Top Unit:**



Size:

The storage cabinets are in following dimensions
Width: 450mm, 600 mm
Depth: 320 mm
Height: 643mm

Material:

The cabinet and steel shutters are made up of 1 mm thick CRCA M.S. sheet.

Surface Treatment:

The complete M.S. material of cabinet is pretreated (degreased, Zinc Phosphated) and epoxy powder coated (Ivory color) for better corrosion resistance. The thickness of powder coat is 45-50 microns, which passes the test of Salt Spray for 1000 Hours and having the Scratch hardness of 3 Kgs.

Other Specifications:

The each storage unit is assembled with M6 Fasteners having Zinc-Cobalt coating for better corrosion resistance. The two adjacent units are connected together with Zinc-Cobalt coated Cabinet Connectors: The shutters are fitted with Nickel-chrome plated self closing hinges (Make: GRASS, GERMANY) which are further coated with cathodic electro-deposition (CED) paint to improve the resistance to corrosion. The drawer trays are mounted on Delryn roller bearing slides, which are made up of 1.6 mm thick M.S. sheet and epoxy powder coated. A pair of slide can carry a UDL of 15 Kgs.

Shutters :

The cabinets can have steel shutters. These shutters are made up of 0.8 mm thick CRCA M.S. sheet with the above-mentioned surface treatment. These shutters are also provided with seals from all sides. The handle provided for steel shutter is made up from SS.

Load Carrying Capacity:

The overall load carrying capacity of cabinet is 80 Kg of UDL (40 kgs. on each shelf and 40 kgs. on bottom). The overall load carrying capacity of drawer is 15 kgs. of UDL for a pair of roller slide.

Technical details and quality standards to be followed for chairs:

Material Requirements for All Revolving and Tubular Chairs.

Cushion Chairs Are Made Out Of Flexible Polyurethane Foam Moulded To Have Consistent Hardness of 20-24 Kg

The polyurethane foam should be molded with density 45 +/-2 kg/meter cube and hardness 20+/-2 kg on hampdness machine at 25% compression.
Armrest of Chairs is made out of integral skin Polyurethane foam of shore hardness A-55-65 and reinforced with MS insert except unless specified.

Gas Lift Mechanism for height adjustments tested for 100000 cycles of operation.
Chairs base of the pedestal consists of 5 prongs made of 5 mm thick MS Plates. Plastic Cladding is provided to make the pedestal look good aesthetically. The MS pedestal should be tested for load bearing.
Twin wheel castors are made of nylon and should be tested to carry a load upto 82 Kgs on the chair.
All steel components should be powder coated with the following specifications.
Dry film thickness more than 45 microns.
Salt spray test to withstand corrosion.
Adhesion as per din 53152 standards.
Scratch hardness as per Bs 3900 / E2.
Impact Test.
Pencil Scratch Test.

All manufactures' whose goods are supplied should have these testing facilities in their own premises. The manufacturer should have an in-house Polyurethane foam making facility (i.e. in it's own premise).

Mandatory Tests to be done by manufacturer on chairs.

- Seating Impact test.
- Arms Stregth Test
- Back Durability Test.
- Castor / Chair durability test.
- Base Test.
- Castor retention test.
- Castor Pull Out test.
- Castor Breakability test.

Powder Coating Tests:

All MS components shall be epoxy polyester powder coated using the seven chamber pretreatment process with the powder thickness greater than 40 microns Dry Film Thickness.

Tests to be carried out on powder coating

- Cross cut test to check Adhesion
- Impact Resistance Test –To 150 Kgs/cm as per BS 3900 / E3.
- Scratch Hardness – Upto as per BS 3900 /E2.
- Salt Spray Test.

Seven Step Anti Rust Treatment to be followed all metal components

The manufacturer should have anti rust treatment facilities for treating all metal components.
The anti rust treatment shall comprise of metal components being dipped in sodium Carbonate and alkaline phosphate to remove oil for 90 seconds at 60 degrees centigrade followed rinsing with water at normal temperature. The rinsed components are to be dipped in phosphoric acid solution at 45 degrees centigrade for 10 minimum for de-rusting followed by Rinsing. Components shall undergo phosphating by dipping in phosphating tank containing iron hydrogen phosphate dissolved in phosphoric acid at normal temperature for minimum 5 minutes followed by rinsing and finally dipping components in chromic phosphates acid reducing agent chemical at temperature of 80 degree centigrade (+/- 10%) for minimum period of 60 seconds.

Specifications for materials and processes to be used on furniture:

Specifications for steel used in chairs.

Cold rolled steel for MS sheet shall have thickness ranging from 0.63 mm to 2.0 mm as per IS:513.
Hot rolled steel for MS sheet shall have thickness ranging from ranging from 2.5 mm to 3.15 mm as per IS 10748 Group 1.
MS ERW tubes used for tubular components should satisfy IS-7138.

Specification for fabric to be used for upholstery

Materials Type	**Description / Selection Criterion**
100% Acrylic	For a Span of 1.2 meters shall have weight 380 grams / meters.
100% Polyester, fiber dyed	For a Span of 1.2 meters shall have weight 330 grams / meters.
100% poly Propylene	For a Span of 1.2 meters shall have weight 230 grams / meters.
Poly Propylene Super Bulk	For a Span of 1.2 meters shall have weight 230 grams / meters.

Material Specification

Plain Particle Board (Medium Density)

They are made up of three layers of particles (wood or any other Lingo-Cellalosic material) and resin mix (any adhesive conforming to IS: 848-1974 or BWR.BWP type). The finer and thinner particles at the top and bottom and coarser and bigger particles for the core layer. The sizing materials is paraffin wax dissolved in mineral spirit. Both surfaces of board are sanded to smooth finish and tolerance in board dimensions are +/- 5 mm for all length and widths +/- 0.6 mm for thickness of boards up to 25 mm, and upto +/-1.5 mm for boards above 25 mm. Tolerance of +/- per meter length of diagonal.
The physical characteristics and test requirements conform to test as per IS 2380-1977.

Density	:	600-900 kg per meter cube.
Moisture content	:	5.10%
Water absorption	:	2 hour test – max 15% 2 hour – max. 5% thickness
Swelling in water	:	2 hour – max. 5% thickness
Swelling due to water absorption	:	max 6%
Tensile strength perpendicular to surface	:	min 0.3 Newton per millimeter square. (for all Thickness)
Tensile strength after cyclic test	:	min 0.3 N/mm square.

Screw withdrawal strength on face: min 1250 N
Screw withdrawal strength on edge: min 850 N

Medium Density Fiber Boards:

MDF boards are manufactured from suitable as specified in IS 12406-1988. The grade and type is flat pressed single layer (interior grade solid board) and designated as IGSB (as per IS: 12406-1988). They are flat and of uniform thickness and density throughout the length and width. Both surfaces shall be standard to smooth finish.

Tolerance in board dimensions is +/- mm for all length and widths, +/- 0.3 mm for thickness upto 9 mm and +/- 0.5 mm for above 9 mm thickness of board, +/- 3 mm per meter length of diagonal.
All physical characteristics and test requirements are as per IS: 2380 -1977.

Specific Gravity	:	0.5 to 0.9
Density	:	600-900 kg per meter cube.
Water absorption	:	5 to 10% 2 hour test – max 7% 24 hour test –max 15%
Modules of rupture up to 20 mm thick	:	min 25 N/mm square.

Linear expansion in thickness due to surface absorption: max 5%
Swelling due to general absorption after 24 hour soaking in
Thickness : max 4%

Length : max 0.4%
Width : 0.4% min.
Tensile strength perpendicular to surface : 0.7 N/mm square (for all thickness).
Screw withdrawal strength on face : Min 1500 N
Screw withdrawal strength on edge. : Min 1250 N

Pre Laminated and twin particle boards:

These particleboards are laminated on both sides by resin impregnated base papers. Each PLB / PLT contains particleboard, impregnated base paper layer, impregnated overlay and are of grade II type II designated as PLB-22. Finish of the paper overlaid boards unless specified will be matt(suede) textured. Tolerance on board dimensions for all lengths and widths +/- 5 mm thickness (upto 25 mm) +/-0.5 mm length on diagonal 2.5 mm max.
Physical characteristics and test requirements are as per IS: 2380-1977.

Density : 600-900 kg per meter cube.
Water absorption : 5 to 10%
2 hour test – max 15%,
24 hour test –max 30%
Swelling in water : 2 hour – max. 8% in thickness
Modules of rupture min 15 N/mm square.
Tensile strength perpendicular to surface : 0.5 N/mm square (for all thickness).
Screw withdrawal strength on face : Min 1550 N
Screw withdrawal strength on edge. : Min 850 N
The following characteristics are according are according to annexure of IS: 128323-1990.

Resistance to steam – No sign of blister, delaminating or change in surface finish.
Resistance to crack – No sign of crack and delamination.
Resistance to cigarette burn.
Resistance to stain. Abrasion Resistance (min) in no of revolutions.

Post formed Laminate Sheets.

The pos formed ((high pressure decorative laminate) one side bearing 0.6 or 0.8 mm thick decorative conform to NEMA specification – ANSI /NEMA/LD-3-1991. Sheets are available in shade, finish, color pattern as mutually decided by the purchaser and supplier. They are rectangular unless otherwise specified have square. Dimensional tolerance for an 8'x4' sheet in all length and width +/- 4.0 mm (according to 1.25 mm per meter) in thickness +/- 0.12 mm. the physical characteristics and test requirements are as per NEME –LD-3-1991.

Impact strength - Ball Impact resistance min 20"
Wear resistance - Min 400 cycles.
Gross dimensional change in machine direction - Max. 1.1%

Gross dimensional change in cross machine direction - 1.4% max.
High temperature resistance -slight effect is accepted on specimen at the final examination.
Stain resistance - No effect is acceptable on the specimen.
Formability - Min radius 12.5 mm.
Blister Resistance : Min 40 Sec.

Boiling water immersion test (2 hour test) as per IS: 2046-1969.
Increase in weight - Max. 30%
Increase in thickness- Max 30%

Decorative Laminated Sheets.

Decorative thermosetting synthetic resin bonded laminated sheets are used in 1.0 thickness and are of type 1 with leaving one side bearing the decorative surface.
The finish, shade, color and pattern can be mutually decided by the purchaser and supplier. Sheets are rectangular and unless otherwise specified have square edges. The dimensional tolerance in all lengths and widths is +/- 1.25 mm per meter, +/- 0.25 mm in thickness +/- 2 mm per meter length of the diagonal . Physical characteristics and test requirements are as per appendix of IS:1046-1969.
Resistance to dry heat – no blistering or appreciable surface deterioration or loss of gloss.
Dimensioal stability in low humidity test at 70+/- 2 deg. C for 24 hours. – less than 0.5% in length and width dimensions.
Resistance to immersion in boiling water.

Increase in weight - max 5%
Increase in thickness - max. 5%
Resistance to staining for 24 hours with sanding against agents specified in IS -2046-1969, specimen should not show blistering at the final examination.
Cross breaking strength for 0.6 mm thick -2000 kg per CM square.
Cross breaking strength for 1.0 mm and 1.5 thick – min 4000 kg per CM square.
Impact strength - min 0.035 kg fm
Machinery test - no Slitting or cracking

Epoxy Powder Coating.

Epoxy powder used for coating can be of a standard shade or as that required. The specific gravity of powder 1.6(+/-0.2) gives a DFT of 50-60 microns. Pencil Hardness of 2H. Cross hatch Adhesion (DIN 55315) or GT – ‘O’ gloss @ 60 DIN 67530 OF 80+/-5% for all standard except black, 45+/-5 black. It is able to withstand min 500 hour of salt spray test. Impact resistance of 150 kgcm.

Approved Makes

Double door refrigerator *Godrej, LG, Samsung, Whirlpool*

Microwave with appropriate cooking vessels 25-30 lit Samsung, LG, Kenstar

LCD TV:-

TV System-M,B/G,D/K,I colour system-NTSC 3.58, Pal, Secam/ (AV in) NTSC 4.43, Pal 60, Video system – 480i, 576i, 480p, 576p, 1080i, 720p, 1080p, HDMI audio in 3/1, Composite / Audio in 2/3, Composite (Monitor) Audio out -1, Features Power Saving mode, clock, sleep timer, leletex, light sensor, OSD language, and Theatre sync, Computer compatible and as approved by Engineer In Charge (**Philips, Sony, Samsung, LG, Toshiba**)