

A1/1270/2021/NMSGCK

NMSM GOVT. COLLEGE, KALPETTA
PUZHAMUDI POST - 673122
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Dated : 15/01/2022

E-TENDER NOTICE

E- Tender is invited for the supply of **LABORATORY WORK TABLE in Chemistry lab** of this college under Development of Laboratories, Libraries & furniture (Plan Fund 2021-22). Value of E-Tender is 22,40,124/- (Twenty Two lakh Forty Thousand One Hundred and Twenty Four Only).

The Tender should be superscribed " **Tender No. A1/1270/2021/NMSGCK - Supply of Laboratory Work Table in Chemistry Lab** " and addressed to the Principal , NMSM Govt. college, Kalpetta - 673122. The following hard copy (Documents) should be submitted to this college on or before 01/02/2022 as detailed below.

Documents

1. Duly filled preliminary agreement in Kerala Stamp Paper
2. If any certificate for exemption for tender fee/EMD
3. Additional specification if you have
4. BOQ (Bill of Quantity)

All the documents to be uploaded in the website in pdf format except BOQ which should be in excel format.

All payments should be made on online process

Tender Cost Fee : 4200/- + 756/- (GST 18%)
EMD Amount : 1%
Date of E-tender Publishing : 17/01/2022
Last date of E-tender Submission : 01/02/2022 2 PM
Date of Opening E-tender : 02/02/2022 3 PM

Hard copies of the uploaded documents duly signed should be submitted to the office along with cover details on or before 01/02/2022.

Note: Requirement of the Institution is attached herewith.

Approval Valid

Digitally Approved By
SHAJI THASNEUS
Date: 17/01/2022
Reason: Approved

MATERIAL SPECIFICATION FOR **NMSM GOVERNMENT COLLEGE, KALPETTA**

WORKTOP

Worktop and back splash of Laboratory benches Should be made of 16mm thick (Silver Grey/Black), as per clients choice) electron beam cured solid grade Compact laminate worktop which is Sefa 3.0 compliant.

Electron beam cured solid grade compact laminate material work top and linings are the perfect surface of quality with inherent antibacterial properties and highly resistant to a wide variety of aggressive chemicals. It is a solid laboratory bench panel to EN 438-4:2005 of various thickness thicknesses for interior scientific surface solutions. Sheets consisting of layers of wood-based fiber (paper and/or wood) impregnated with thermosetting resins and surface layer(s) on one or both sides, having decorative colours. A transparent topcoat is added to the surface layer(s) and cured by the technology Electron Beam Curing (EBC), to enhance the scratch and chemical resistance.

These components are bonded together with simultaneous application of heat ($\geq 150^{\circ}\text{C}$ / $\geq 302^{\circ}\text{F}$) and high specific pressure ($> 5\text{ Mpa}$) to obtain a homogeneous non-porous material with increased density and integral decorative surface. This process guarantees a pore-free, closed surface which is resistant to a multiple of aggressive chemicals, anti bacterial, easy to clean, disinfect and maintain. The level of scratch resistance is equal or above 4 Newton according to EN 438-2:12. The worktops and linings Should have minimum joints. The exposed edges Should be uniformly machine beveled with blended bevel corners. The colour Should be uniform though out the surface. Test reports and 10 years chemical resistance warranty from the manufacturer to be provided.

UNDERBENCH CABINETS (High Pressure Melamine Laminated Plywood)

The Carcass/ Cabinet Body/Door/ Drawer Front/Shelves etc. :

Thickness 18mm(± 1) mm

Core Material (BWP - Boiled Water Proof) plywood.

Finish - High quality HPL (High pressure Melamine laminate) of 0.8mm hot pressed on both the sides.

The exposed edges of the doors/ drawers etc. will be sealed with min. 3mm thick high quality PVC edges. For strong bonding and durability, the lamination and edging will be machine pressed at high temperature and pressure.

For carcass, filler panel etc., the exposed edges will be sealed with 1 mm thick high quality PVC edge tapes. For strong bonding and durability, the lamination and edging should be machine pressed at high temperature and pressure.

- Knee space Panel will be made of High pressure laminated plywood (BWP) of 9 mm thick.
- 5 mm thick for back wall of cabinets.

- For High Strength and Durability, Permanent case work will be made using latest technology such as biscuit joints with strong adhesives. The joinery construction with biscuit type joints will be clamped to obtain perfect alignment and permanent bonding. The Cabinet body will be made of permanent casework without any screws and knockdown / mini-fix fittings (mini fix and dowel joints not accepted), without any gaps for dust accumulation Inside of the cabinet body. All joints will be sealed and it should be easily cleanable.

- Doors of all under bench cabinets will have "D" shaped brush finish stainless steel handles.

- There will be minimum of two heavy duty, nickel plated, self-closing concealed alloy hinges for each cabinet door and will open 165 degree and will be with 3 way adjustment for perfect finish and correct alignment.

- Standard Drawer slides will be metabox type, made of pressed metal, with profiling for added strength, epoxy coated and with nylon wheels to allow smooth and silent sliding.

- The size and layout for benches and cabinets will be described in the specific requirement table. Cabinets have drawers as well as doors in different sizes.

- Where specified good quality locks and keys will be provided for cabinets.

WORK TOP/CABINETRY SUPPORT WORK

- For the floor standing or plinth mounted cabinets, the work top will be supported by the cabinets which rest on the floor without any additional support of any steel frameworks. Panel supports are provided if additional supports are needed.

ELECTRICAL FITTINGS

- **Pedestal box**

Sleek, Robust and Small Electrical pedestal boxes will be made of 1.2mm thick CRCA sheets to accommodate, single, double or quadruplet sockets and switches. The pedestal will take only very minimum space on the work table. The Pedestal boxes will be epoxy powder coated to min 80 microns for good finish and aesthetic look.

- **Electrical Sockets and switches**

Supply will be standard 5/15 Amp/220 Volt single, double or quadruplet electrical sockets which fully conforms to IS-1293-1988. Flame retardant, UV stabilized, unbreakable polycarbonate casing. Connector of phosphor bronze to provide high conductivity, flexibility and contact pressure. Silver plated (7 microns) brass terminals to reduce heating and improve conductivity. To be Encased in metal pedestal box, for mounting on to bench work tops or on service pillars. Switches will be Piano type unless otherwise specified. Sockets can be either Crabtree, Legrand, or Northwest.

Water fittings

- It will be made of brass (UNI 5705 -65) and will have an epoxide covering in White color. Fittings will be manufactured as per modern technologies & comply to DIN 12920 standards for the best performance.
- Connection: G3/8, G1/2 and G3/4 UNI ISO 228/1.
- Nozzle : olive type hose screw coupling DIN 12898.
- Upper part: with normal regulation closing on/off.
- Maximum working pressure: 10 Bar.
- Sound - control during the flow of the water: DIN 4109. All taps and mixers used in multi-occupancy properties have to comply emitted noise > 30 dB(A). Water stand-out fittings will be from TOF Italy. Or Equivalent. All connector fitting used under bench also will be high quality and closely sealed against any leaks.

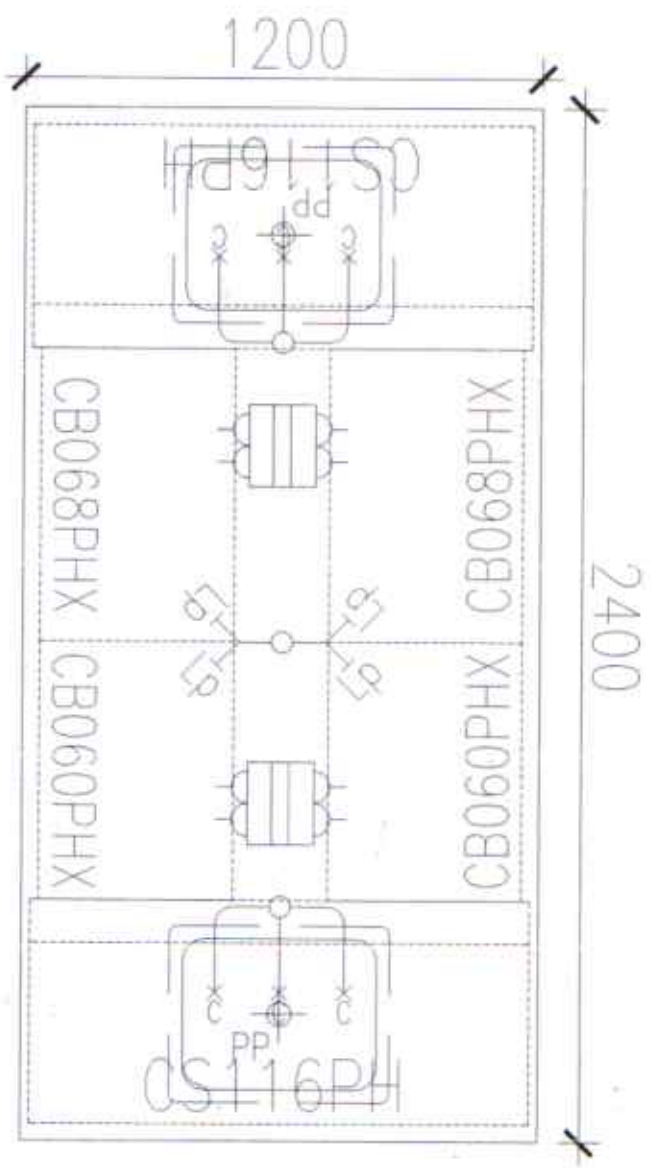
Gas fittings:

- It will be made of brass (UNI 5705 -65) and will have an epoxide covering in White color.
- Connection: G3/8 and G1/2 UNI ISO 228/1.
- Nozzle: olive type fixed as per standard DIN 12898.
- Upper part: with ceramic valve spring loaded for safety, maintenance free.
- In security for your best choice gas fittings are manufactured in accordance with DIN DVGW regulations.
- Maximum working pressure: 0.2 bar.

- Gas standout fittings will be from TOF Italy. Or Equivalent.

Polypropylene Sink (45 x 35 cm)

Where specified Sink provided will be chemical resistant made of Polypropylene. Have good sloping drain for easy drainage of waste water. It will be easy to maintain hygiene and will easily fit into work top with smooth edges and finish. The Sink will be a single molded piece including the outlet to avoid leakage (not 2 piece sink which is prone to leakage) and will not have any sharp corners inside. A anti siphon bottle trap in Polypropylene will be connected directly coupled to the threaded outlet at sink bottom. Sink color shall be black.



ISLAND BENCH

SIZE:2400X1200X900MM(H)

QUANTITY : 1 NO

Tre H-90cm