Punjab Institute of Technology, GTB Garh (Moga)

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MODULAR CHEMISTRY LAB

GENERAL SPECIFICATIONS

1. Storage Cabinets should be of modular design consisting of combination of vertical and horizontal frames of varying width standing on height adjustable legs, each having a load carrying capacity of 450 Kg, cover panels, metal drawers, support brackets, shelves, slides and handles. The complete M.S. material of cabinet to be pretreated (degreased, Zinc phosphated) and epoxy powder coated for better corrosion resistance. The thickness of powder coat should be 45-50 microns, which should have passed the test of Salt Spray for 1000 hours and having the Scratch Hardness of 3Kgs.

1.1 Cabinet Frame: 1.2 mm horizontal and vertical stiffeners and 0.8 mm vertical panel of CRCA (Cold Rolled Close Annealed) MS sheet.

1.2 Cover Panels: End side panel and hack panel should be of of 0.8 mm thick CRCA MS sheet.

1.3 Shutters: Metal Shutters of 0.8 mm thick CRCA MS sheet and 40-50 microns pure epoxy powder coating raving a Scratch Hardness of 3Kgs.

1.4 Shelves & Drawers: CRCA shelves with a load carrying capacity of 40 Kg. The overall load carrying capacity of cabinet to be 80 Kg of UDL — Uniformly Distributed Load (40 kgs. on each shelf and 40 kgs. on bottom). The overall load carrying capacity of drawer should be 40 kgs. of UDL for a pair of ball slide.

1.5 Slides & Handles: High precision double extension ball slides. Hinges to be spring loaded with CED (Cathode Electrode Deposition) coating with self closing mechanism. Handles should be PVC recessed ,

1.6 Locks: Each unit should have a locking facility with 180°, 10 lever cam lock mechanism.

1.7 Legs: The units to be supported on wide base plastic legs of base diameter 40 mm.

2. Reagent Shelves: should be of complete modular design consisting of horizontal 2 stage storage shelves. The end vertical support should be 0.9 mm & horizontal shelves of 0.8 mm thick CRCA M.S. Sheet. Each shelf should have a load carrying capacity of 30 kgs. of UDL for the length of 1000 mm. The complete M.S. material of cabinet to be pretreated (degreased, Zinc phosphated) and epoxy powder coated for better corrosion resistance. The thickness of powder coat should be 45-50 microns, which should have passed the test of Salt Spray for 1000 hours and having the Scratch Hardness of 3Kgs.

3. Stainless Steel Sinks of SS304 without border, appearance in matt finish and with strainer & bottle trap.

4. Three (3) way faucets: Sink unit shall have 3 way (2 straight + 1 swan neck) 360° turn type water faucets made lip of Brass With epoX, powder ,coating. It should be PH and rust resistant. The switch valve cast to be made of ceramic that can avot am wear. me outlet produced in PVC, has detachable hose nozzles, allay pressure, changeable high-pressure outlet constructed or normal clean outlet control of water flow faucet immediately.

5. Electrical Accessories and fittings should consist of electrical trunking of 0.8 mm thick CRCA MS sheet. It should have a high temperature withstanding capacity with excellent electrical insulation properties. The rear portion of above accessories which is in contact with live metal shall be made from thermo set material which should not melt on heating.

6. Work surface should be 18 mm thick high quality granite in jet black color with pre moulded, pre polished edges. The backing material for granite should be 6 mm thick-Neoprene mat.

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