

SECTION D**INTERIOR FURNISHING****1.0 PAINT FINISHES**

- 1.1 Paint finishes shall be specified herein and in relevant clauses with the General specifications of this tender.
- 1.2 The Contractor shall ensure only one system of paint is used for the works and shall not mix the paint, primer, undercoat, etc. of different brands into one system at any one time. Contractor shall seek PM's approval if different brands of paint are used. Paint will be applied straight from the container without dilution. If thinning is required for better workability, the Contractor shall seek PM/ Designer's permission to do so.
- 1.3 Spray painting shall only be executed where expressly stated, and permitted only upon written approval from the PM/ Designer is obtained for both the machines and the process. The nozzle or pressure (lb per square inch) to be so operated as to give an even coating throughout to the satisfaction of the PM/ Designer.
- 1.4 All concrete/plastered/brick/masonry/timber surfaces to be painted shall be thoroughly dry, clean and dust free. Scrape or grind off plaster or mortar droppings/ splashes. Rub down and remove any efflorescence. The latter shall not be washed off but shall be removed by damp cloth or other approved means. Let the surface dry and left for 48 hours to ascertain if further efflorescence occurs.
- 1.5 Surfaces to be finished with enamel paint shall be primed with one coat of alkali resistant primer. Allow for dry and harden before applying one undercoat and two finishing coats of finishing paint. Allow proper drying and hardening between coats as recommended by the manufacturer.
- 1.6 Surfaces to be finished with emulsion paint shall be sealed with one coat of alkali-resistant sealer. Allow for dry and harden before applying two finishing coats of emulsion paint. Allow proper drying and hardening between coats as recommended by the manufacturer.
- 1.7 All metal surfaces to be painted shall be clean, free from grease, oil, rust, dust and dry. Wire brush off rust, rub down to bare metal. Dust off and prime immediately with one coat of approved primer before applying 2 coats of finishing paint. Allow proper drying and hardening between coats as recommended by the manufacturer.
- 1.8 Timber surfaces to be varnished shall be clean, dry and firm. Sand down surface to a smooth and even eggshell finish. Dust off, knot and stop timber surfaces as in preparation for painting works but with approved tinted oil-based filler. Allow for dry and harden, sand down, dust off and stained to approve colour as directed by the PM/ Designer. Dust off and finish with three coats of matt/semi gloss/glossy polyurethane based clear varnish to the satisfaction of the PM/ Designer. Allow proper drying and hardening between coats.

2.0 TILING WORK

2.1 Tiling works shall be specified herein and in relevant clauses with the General specifications of this tender.

2.2 If required by the Designer, the Contractor shall install a complete sample unit (to be selected by the Designer) for the Client /Designer's prior approval before commencing work.

2.3 The Designer is authorized to reject all defective and other material failing to comply with the specification and such rejected material shall be removed from the site at the Contractor's expense.

2.4 Homogenous/Ceramic Tiles Application to Wall:

- a) Work in areas to receive tile shall be completed before commencement of any tile work.
- b) Wall coat mix: One (1) part of cement, three (3) parts damp sand, 1/5 part lime by volume. Prior to applying the float coat the scratch coat shall be cured. A plumb, true mortar surface of the proper thickness from finished wall line shall be provided. Total thickness of float coat and scratch coat shall be at least 30mm. Float coat shall be applied over areas no greater than to be covered with tiles. Float coat shall be wood trowel finished.
- c) Setting tile: The float coat at walls and base shall be applied and rodded to a true and even surface. A thin layer of cement shall be pressed firmly into the float bed, tamping with wood blocks to obtain smooth surface. All tiles shall be aligned properly.
- e) Wall Grouting: The color of tinted grouting shall be in line with the selected tile.
- f) Adhesive: Adhesive used shall be in accordance with tile manufacturer's instruction and specifications.

2.5 Application to Floor

- a) Concrete to receive setting beds shall be compacted and properly cured before commencement of floor and pond bottom tile installation.
- b) Setting Bed for Floor: Composition of one (1) part cement, six (6) parts damp sand by volume. The setting bed for floor shall be applied with reinforcing mesh if indicated. When mixed with water the mortar mix shall be of such consistency or workability as to promote maximum density, determined by stroking the mortar surface with a trowel. When of correct consistency, the trowelled surface shall readily assume a smoothed and slacked appearance. Setting bed shall be screeded and tamped firmly. Setting beds shall be in thickness as shown on the drawings. While the setting bed is still fresh but still enough to set tile, tiles shall be set as follows.
- c) Setting: the setting bed shall be applied to a true and even surface. A thin layer, 1mm to 1.5mm in thickness of cement paste shall be trowelled or brushed over the bed and/ or the back of tile. These areas (setting bed and cement paste) shall be limited to what can be covered with tile before the mortar sets. Tile shall be pressed firmly into bed tramping with wood blocks to obtain smooth surface. All tiles shall be aligned properly and joints shall be straight. Tramping shall be completed within one (1) hour after placing tile. Adjusting work out of line shall be done within the one (1) hour period.

2.6 Tiles shall be washed without scratching joints after setting. All surface cement shall be removed and care shall be taken not to damage tiles or adjacent materials.

2.7 Approved waterproofing system as specified under general specifications shall be applied to all floors of wet area with approx. upturn of 300mm. Contractor to submit methods of statement before commencement of work. Minimum ponding test of 24hrs shall be allowed for each individual area.

3.0 WALL COVERINGS

3.1 Wall coverings shall be specified herein and in relevant clauses with the General specifications of this tender.

3.2 Wallpaper shall be applied base on manufacturer recommendations or normal methods used for standard wallpaper application. The Contractor shall ensure flat surface condition for all walls and partitions before applying wallpaper. Substances arising from a mortar or plywood base may cause wallpaper to dis-colour. The Contractor is to apply sealant on the surfaces to minimize the wallpaper from dis-colouring.

3.3 Contractor shall adhere to standard application method as laid out by manufacturer, base on the following basics:-

- a) Use a soft brush to spread the paper evenly on the wall. Do not use metal spatulas or hard tools.
- b) Do not run a roller over joints with undue force.
- c) Wallpaper should be hung joint to joint, but if an overlapping edge must be cut off, use glue free tape to keep the edge from sticking to the surface.
- d) To finish, use a well damp sponge to gently wipe away excess glue.

4.0 GRAPHIC & DIGITAL PRINTING

4.1 All graphic wall shall be Digital print out full color graphic on opaque vinyl with matt surface lamination.

4.2 Contractor shall allow cost for graphic design and digital enhancement and shall submit artwork for Employer/ Project Manager/ Designer approval before printing.

4.3 Applications of digital printing shall be done according of normal wallpaper installation method or as per manufacturer specifications

4.4 All surface must be properly treated to prevent substances arising from mortar or plywood base that may cause undulation surface appearance.

5.0 CARPET TILES

5.1 The carpet manufacturer shall have no less than fifteen years of production experience with modular carpet similar to the type specified. Published product literature of carpet manufacturer must clearly indicate compliance of products with requirements of this section.

5.2 Commitment to sustainability - carpet manufacturer must demonstrate environmental responsibility through programs of source reduction, recycling, reuse and conservation and registration to the ISO 14001 Environmental Management System.

- 5.3 All products must comply with Carpet & Rug Institute “Green Label Plus” scheme.
- 5.4 Finished Modular product is required to be 3rd party certified as climate Neutral, offering program that offset greenhouse gas emission associated with life cycle of the product.
- 5.5 Manufacturer must have in place a reclamation program at the end of life cycle of product.
- 5.6 Contractor shall provide the following written warranties for a period of minimum 15 years:
- a) Wear - Surface fiber wear shall not be more than 10% by weight in 15 years. (Note: Wear warranty shall not require use of chair pads)
 - b) Static - Static generation at less than 3.0 kV at 70° F, and 20% R.H.
 - c) No delamination
 - d) No edge ravel
 - e) No dimensional instability (i.e., shrinkage, curling and doming) which adversely affect the ability of the tile to lay flat
 - f) Mergeability – Carpet that is of the same style/color, but from different dyelots and/or manufacturing dates, may be merged and used interchangeably, both at initial installation and at later selective replacement, to create a continuous carpeted surface with no tile appearing out of place.
- 5.7 Modular carpet tile shall meet the following specifications:
- a) Yarn System: Branded Type 6,6 nylon with 100% postindustrial recycled polymer
 - b) Dye Method: 100% Solution Dyed must be able to merge.
 - c) Mergeability: Carpet that is of the same style/color, but from different dyelots and/or manufacturing dates, merged and used interchangeably, both at initial installation and at later selective replacement, to create a continuous carpeted surface with no tile appearing out of place
 - d) Construction: Tufted
 - e) Patterning: Permanent Integrated (topical application /wet patterning or printed not allowed)
 - f) Texture: Textured Loop
 - g) Gauge/Stitch: Minimum 1/12
 - h) Pile Height: Minimum 4mm+/-0.5mm
 - i) Pile Weight: Minimum 22 oz per yard
 - j) Total Thickness: 7.0 +/- 0.5mm
 - k) Tile Size: 50cm x 50cm
 - l) Backing: Fiberglass Reinforced Thermoplastic Composite containing minimum 40% recycle industrial material content and must be 100% recyclable at the end of its useful life.
 - m) Soil/Stain Resistance: Must be permanently applied to each fiber during manufacturing process.
 - n) Antimicrobial: Must be permanently applied during manufacturing of modular tiles.
 - o) Non-directional Installation Method; All product must be designed for random installation, meaning that each and every tile can be installed in any of the four possible directions without regard to pile direction, pattern or orientation of any adjacent tiles while still creating a finished carpet tile assembly that appears to be a visually continuous carpeted surface with no tile appearing out of place or improperly positioned.

5.8 Modular carpet tile shall meet the following performance standards:

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| a) | Carpet Flammability | |
| | .1 Methenamine Pill (BS6307/ISO6925) | Radius < 12cm |
| | .2 Radiant Panel Test (ASTM E648) | Class 1 |
| b) | Smoke Density (ASTM E662) | < 450 Flaming Mode |
| c) | Dimensional Stability (Aachen Method
Din 54318) | < 0.1% change |
| d) | Electrostatic (AATCC 134) | < 3 kV |
| e) | Lightfastness (AATCC 16-E) | >4-5 |
| | Rubbing/Crocking (AATCC 165) | >4-5 |
| | Water (AATCC – 107) | >4-5 |
| f) | Caster Chair (BS EN 985) | r > 2.4 |
| | Vettermann Drum | >3-4 |

6.0 TIMBER FLOORING

6.1 Timber strip flooring system shall be supplied and installed by Specialist Floor Contractor

6.2 Prior to the commencement of installation, the Specialist Contractor shall inspect the sub-floor over which Timber Strip Flooring System is to be laid and shall advise in writing his acceptance of the sub-floor. The Contractor shall include all cost to make good all sub floor should existing floor leveling is unacceptable.

6.3 Timber Strip Flooring System shall incorporate one layer of sub-base of minimum 12mm thk plywood. Solid wood trimming shall be added to merge timber floor with all adjacent floors.

6.4 Plywood Sub-Base should be glued down with approved adhesive, trowel and fastened with concrete nails to cement substrates at 300mm C.C.

6.5 Timber Floor Strip as specified should be installed over the Plywood Sub-Base. Each floor strip should be fastened down using 1.1/4" (31mm) "L" nail at 45-degree angle to tongue onto the Sub-base at 300mm C.C.

6.6 On completion of laying the Timber Strip Flooring System, the Contractor shall allow for sufficient curing time. The floor shall be cured for minimum nos. of days as recommended by manufacturer before proceeding to varnish. Floor should not be covered during the curing period.

6.7 Timber Strip shall be sanded to manufacturer's instruction and apply 1 coat of water-base primer followed by 2 coats of water-base polyurethane matt finishes.

6.8 Skirting detail as per specification to be fixed to perimeter of wall with headless concrete nails. Nails holes to be concealed with matching wood filler and skirting to be sanded and finished with 1 coat of primer and 1 finishing coat similar to the type of coating used for floor.

7.0 VINYL TILE FLOORING

7.1 Vinyl tile flooring shall be specified herein and in relevant clauses with the General specifications in this tender.

- 7.2 Contractor to ensure under-floor is dry and clean. Fill all minor irregularities, cracks and hollows with leveling compound to give a fine true surface. Prime, if necessary, and apply on adhesive recommended by the manufacturer.

- 7.3 The contractor to ensure vinyl tile flooring is leveled between other adjacent flooring. Contractor shall allowed for cost of underlay, self-leveling compound or other approved leveling method if vinyl tile is lower than the adjacent flooring.