

Item No. 10 Providing and Supplying Comfortable Steel Body - Chair Mesh Back Solid Chrome Base Chair Suitable for Reception/ Conference Room Heavy Duty Chair- of make Nilkamal, CELLO, SUPREME ,Goyal steel etc. Completed as directed by the Architect and approved by the Engineer in Charge - Stainless Steel Material



Sr. No.	Description	Specification
1	Type	Visitor / Reception / Conference Chair
2	Chair Body	Heavy Duty Stainless Steel / Chrome Finished Steel Structure
3	Backrest	Breathable High Quality Mesh Back
4	Seat	Cushioned PU Foam Seat with Fabric/Upholstery Finish
5	Frame Finish	Chrome Plated / Stainless Steel Finish
6	Arm Rest	Fixed Steel / PP Arm Rest
7	Base / Legs	Solid Chrome Base / Cantilever Type Heavy Duty Frame
8	Load Capacity	Minimum 100–120 Kg
9	Color	Black / Grey / As approved by Architect
10	Floor Protection	PVC / Nylon Anti-skid Shoes
11	Usage	Reception Room / Conference Room / Office Visitor Seating
12	Approved Make	Nilkamal / Cello / Supreme / Goyal Steel or Equivalent

Scope of Work

- Providing and supplying approved chair at site.
- Including transportation, loading, unloading and handling.
- Including all fixing accessories, bolts, caps, screws and fittings.
- Complete in all respects as per approval of Engineer-in-Charge.

Measurement

The item shall be measured in **Numbers (Nos.)** of completed and accepted chairs supplied at site.

Rate Includes

- Chair complete with all components.
- Stainless steel/chrome finished structure.
- Mesh back and cushioned seating.
- All taxes, transportation, labour and incidental charges.
- Complete installation and positioning at designated location.

- Item No. 11 Providing and Supplying Comfortable premium Plastic Body - Chair cushioning seat and back support Suitable for Reception/ Conference Room Heavy Duty Chair- of make Nilkamal, CELLO, SUPREME ,Goyal steel etc. Completed as directed by the Architect and approved by the Engineer in Charge - Plastic Material



Sr. No.	Description	Specification
1	Type	Reception / Visitor / Conference Chair
2	Chair Body	Heavy Duty Premium Quality Injection Moulded Plastic Body
3	Seat	Cushioned PU Foam Seat with Fabric/Leatherette Finish
4	Back Support	Cushioned Ergonomic Back Support
5	Frame Structure	Reinforced Plastic / Metal Supported Frame
6	Arm Rest	Integrated Plastic Arm Rest
7	Load Capacity	Minimum 100–120 Kg
8	Color	Black / Grey / Brown / As approved by Architect
9	Floor Protection	Anti-skid PVC / Nylon Shoes
10	Usage	Reception Room / Conference Room / Waiting Area
11	Maintenance	Easy Clean & Scratch Resistant Surface
12	Approved Make	Nilkamal / Cello / Supreme / Goyal Steel or Equivalent

Scope of Work

- Providing and supplying approved chairs at site.
- Including transportation, loading, unloading and handling charges.
- Including all accessories, fittings and fixing materials.
- Complete in all respects as directed and approved.

Measurement

The item shall be measured in **Numbers (Nos.)** of chairs successfully supplied and accepted at site.

Rate Includes

- Premium plastic body chair complete.
- Cushioned seat and back support.
- Transportation and handling.
- All taxes, labour and incidental charges.
- Placement at designated location.

Item No. 12 Providing and Arranging of 100 Litre capacity LLDPE solid waste bin having size at top 500 mm & bottom 350 mm square, height 900 mm having standard weight as per the manufacturer's specification of 1 unit including all necessary fixture, fasteners, fittings, labour material machinery etc complete as selected and directed by Engineer Incharge.



Material

All materials shall be as per item description as approved by EIC and specified item's Manufacturer's specifications.

Workmanship

The work shall be carried out with the best practice followed in the industry. The contractor shall make sure that the item to be installed is in its perfect state as per the standards established by its manufacturer. Additionally, the items installed shall not be damaged and shall be free from any dents or scratches. It is the duty of the contractor to make proper arrangements for protection of the items during stacking, transporting, loading/unloading till handover. The contractor shall get the items inspected and approved by the architect and/or EIC before installation. Any claim, upon rejection of any item by the EIC will not be entertained. The contractor shall install the item as directed by EIC at all floors/all heights and all levels.

Measurement

The rate shall be consolidated for all above items. The rate shall include cost of all materials, fixtures, joineries , hardware etc & labour charges for all height to complete the work satisfactorily including supplying and arranging as per layout plan at site of work and as per the instruction of Engineer-in-charge.

No Extra charge will be paid for any other reasons. The rate shall be for an unit of one number.

Item No. 13 Providing and Arranging Conference table Top and Leg 40 mm thick made from 18 mm thick MR grade plywood and 6mm thick corian sheet with melamine polish finish. Apron to be made from 18mm thick MR grade finish with 4mm thick Veneer sheet with melamine polish finish. Provision for the sound system and cable manager shall be made as per the requirement Including all materials and labour etc.complete as per detail drawing and instruction of engineer-in charge.(Measurement considered Top portion)



Sr. No.	Description	Specification
1	Type	Conference / Board Room Table
2	Top Thickness	Overall 40 mm Thick
3	Base Material	18 mm Thick MR Grade Plywood
4	Top Finish	6 mm Thick Corian Sheet Finish
5	Polish Finish	Melamine Polish Finish
6	Leg Structure	18 mm MR Grade Plywood with Corian Finish
7	Apron / Modesty Panel	18 mm MR Grade Plywood
8	Apron Finish	4 mm Thick Natural Veneer with Melamine Polish
9	Edge Finish	Smooth Machine Finished / Rounded Edge
10	Cable Management	Concealed Cable Manager Provision
11	Electrical Provision	Opening/Cut-out for Sound System & Electrical Accessories
12	Hardware	Approved quality screws, adhesive, fixtures and fittings
13	Colour & Pattern	As approved by Architect / Engineer-in-Charge

Scope of Work

- Providing and arranging complete conference table at site.
 - Including plywood framework, Corian fixing and veneer finishing.
 - Including melamine polishing and edge finishing.
 - Including cable manager, sound system provision and cut-outs.
 - Including all labour, tools, machinery and transportation.
 - Complete in all respects as per approved drawing and direction of Engineer-in-Charge.
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Measurement

Measurement shall be taken in **Square Metre (Sq.M.)** considering the **Top Surface Area only**.

Rate Includes

- MR grade plywood framework.
 - Corian sheet cladding and fixing.
 - Veneer sheet finishing and melamine polish.
 - Provision for cable management and sound system.
 - All materials, labour, machinery, transportation and incidental charges.
 - Complete installation and finishing.
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Approved Materials

- MR Grade Plywood of approved make.
- Corian / Equivalent solid surface sheet.
- Natural Veneer approved by Architect.
- Approved quality melamine polish and hardware fittings.

Item No. 14 Providing and Fixing Impulse Blackout Roller Blinds with fabric of 0.53mm thickness and Top channel of non-rusting aluminium alloy with 1.25mm thickness and bottom channel of 1.50mm thickness & 21mm diameter. Tilt channel of ABS plastic with 1.50mm polyester cord with 4.50mm balls with stop lock arrangement including all necessary fixture, fasteners, fittings, labour material machinery etc complete as selected and directed by Engineer In charge.



Sr. No.	Description	Specification
1	Type	Blackout Roller Blind
2	Fabric Thickness	0.53 mm Thick Blackout Fabric
3	Fabric Property	Dust Resistant, Light Blocking, UV Resistant
4	Top Channel	Non-Rusting Aluminium Alloy
5	Top Channel Thickness	1.25 mm
6	Bottom Channel Thickness	1.50 mm
7	Bottom Tube Diameter	21 mm Diameter
8	Operating Mechanism	Roller Type Manual Operation
9	Tilt / Control System	ABS Plastic Mechanism
10	Cord Type	1.50 mm Polyester Cord
11	Ball Size	4.50 mm
12	Lock Arrangement	Stop Lock Arrangement
13	Colour / Shade	As approved by Architect / Engineer
14	Installation	Wall / Ceiling Mounted

Scope of Work

- Providing and fixing blackout roller blinds at site.
- Including aluminium channels, roller mechanism and brackets.
- Including polyester cord, stop lock and accessories.
- Including cutting, fixing, alignment and testing.
- Including labour, machinery, transportation and all incidental charges.
- Complete in all respects as directed by the Engineer-in-Charge.

Measurement

The item shall be measured in **Square Metre (Sq.M.)** of installed roller blind area.

Rate Includes

- Blackout fabric and roller mechanism.
- Aluminium top and bottom channels.
- ABS control mechanism and polyester cord.
- All fixtures, fasteners and accessories.
- Labour, machinery, transportation and taxes.
- Complete fixing and commissioning.

Item No. 15 Providing and fixing DORMA MAKE DOOR CLOSURE MODEL NO TS 77 std at desired location as instructed Including all materials and labour etc.complete as per detail drawing and instruction of engineer-in charge.



Sr. No.	Description		Specification
1	Make	DORMA	
2	Model No.	TS 77 STD	
3	Type	Hydraulic Door Closure	
4	Application	Wooden / Aluminium / Steel Door	
5	Body Material	Heavy Duty Cast Aluminium Body	
6	Finish	Silver / Aluminium Finish	
7	Operation	Automatic Controlled Door Closing	
8	Mounting	Surface Mounted	
9	Arm Type	Standard Arm Set	
10	Closing Speed	Adjustable	
11	Usage	Office / Commercial / Institutional Doors	

Sr. No.	Description	Specification
12	Accessories	Complete with Screws, Fasteners & Mounting Plate

Scope of Work

- Providing and fixing approved door closer at required location.
- Including drilling, alignment and installation.
- Including all screws, fasteners and fixing accessories.
- Including testing and smooth operation adjustment.
- Complete in all respects as directed by Engineer-in-Charge.

Measurement

The item shall be measured in **Numbers (Nos.)** of completed and accepted door closers fixed at site.

Rate Includes

- Supply of DORMA TS 77 STD door closer.
- Standard arm and fixing accessories.
- Labour, tools and machinery.
- Transportation, installation and testing.
- All incidental charges complete.

Approved Make

- DORMA
or equivalent approved make as directed by the Engineer-in-Charge.

Item No. 16 Providing and fixing wooden Flooring and Matching Skirting On Existing flooring including end portion finished with Wooden Cleap including all laboure & material of approved standard quality material as directed by as engineer in charge etc completed

TYPES OF FLOORING

Item cover with Providing and fixing wooden Flooring and Matching Skirting On Existing flooring including end portion finished with Wooden Cleap including all labour & material of approved standard quality material as directed by as engineer in charge etc completed

WOOD FLOORING TO RESIDENTIAL UNITS:

E212 Engineered Parquet Herringbone wood flooring for South Bank Towers London

Substrate:	<p>Concrete base to BS EN 206-1</p> <p>CMS Danskin Acoustic floor saddle system with Smartspan overlay. Gypsum based fibre reinforced calcium sulphate substrate tested to EN 13213 for interior use to BS5669:1979</p> <p>Floor build up to be as per KPF_SBT floor build-ups 10_2910.04.14 section 1c.Engineered Timber</p> <p>12mm Ply overlay to be installed over the 18mm P5 dense structural T & G moisture resistant, oil impregnated chipboard.</p>
Preparation:	<p>Clean, dry substrate with a moisture content of less than 2%. The substrate needs to be firmly secured, Smooth, even, and free from abrupt changes in level. The surface regularity when checked with a 3 m straightedge with 3 mm feet at each end, placed anywhere on the surface, will achieve SR2 to BS8204 and have no gap greater than 6 mm, and straightedge will not be obstructed by the substrate.</p> <p>The CMS Danskin Saddle System uses resilient saddles, packers, optional elevating blocks and strength graded timber support bearers to provide an easily levelled under structure for supporting chipboard, plywood or hardwood flooring.</p> <p>Refer to CMS Danskin for their NBS Specification for installing this substrate.</p>
Plywood:	<p>Marine Grade (WBP) plywood to BS1088. The plywood needs to be securely adhered to the T & G chipboard substrate, adhesive such as SW890 can be used to fully bond the plywood to the chipboard using a 6mm notched trowel to create a solid bed of adhesive.</p> <p>Before installing the E212 (15) wood flooring the adhesive must be allowed to dry for 48 hours, the surface of the plywood needs to be flat and dry with a moisture content balanced to the moisture content of the wood flooring (between 6% and 9%).</p>
Wood boards:	<p>Free from decay, through splits and insect attack (including ambrosia beetle damage, unless permitted in the class/ grade specified).</p>
Manufacturer:	<p>The Solid Wood Flooring Company - Tel: 01666 504015 / mobile: 07831680 206 / Email: info@thesolidwoodflooringcompany.com.</p>
Product reference:	<p>E212 (15) Engineered deep fumed and enviro raw timber finish</p>

Species:	Oak FSC 100%
Appearance:	Class/ Grade: To BS EN 942, Mixed Grade with sound knots up to 50mm permitted
Board size:	15mm thick x 120mm wide x 600mm long with a 4mm solid oak top layer of cut veneer specifically designed for use with under floor heating. 10 pieces Left and 10 pieces right handed per carton for herringbone pattern with 1.44 m ² per carton
Edges:	Long edges square tongued & grooved, Ends square tongued & grooved.
Finish:	<p>Factory finished with Timberex Enviro Raw Timber finish</p> <p>1: 4mm cut veneer deep fumed in a fuming chamber prior to adhering to The backing</p> <p>2: Fumed cut veneer adhered to multi ply backing with Dyneawood adhesives designed for use with under floor heating</p> <p>3: Manufactured boards cured and kiln dried to balance the moisture content of all components</p> <p>4: One coat of Timberex EnviroRaw Timber oil</p> <p>5: Light sand</p> <p>6: One coat of Timberex EnviroRaw Timber oil</p> <p>7: One coat of Timberex RawEnviro Timber oil</p>
Completion of Works:	As this is an oiled board, after all works are completed and before hand over to the client (ALL other trades will have finished) the floor should be vacuumed, cleaned with Bio C neutral PH cleaner and then a coat of Enviro Maintenance Oil applied in accordance with the manufacturer's instructions

Performance:

Load bearing:	Conform to BS 6399-1: 1966 table 1 section 3
Reaction to fire:	Perform to EN 13501-1 Dn s1
Slip Resistance:	Tested to BS 7967-2: 2002 (Pendulum Test) and achieve LOW Slip risk in the DRY and MODERATE risk in the WET
Thermal Conductivity:	EN ISO 10456 and EN ISO 12664 Result 0.15 W/(mk)

<i>Storage:</i>	<p>The wood flooring boards are to be stored in conditions where no moisture can attack them.</p> <p>It is important that all wet trades have been completed before any boards are received on site.</p> <p>Storage conditions should have a Relative Humidity of between 35% and 55% and Relative Humidity of less than 75%</p>
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<i>Acclimatisation:</i>	The boards will not require acclimatisation.
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Where the boards are to be fitted over under floor heating, the boards must be acclimatised for 7 to 10 days before they are fitted, In the same condition that they will experience in use.

The cartons must be stacked a minimum of 50mm off any floor, and a minimum of 500mm from any wall. The cartons must be fully supported along their lengths, and the ends of the cartons should be opened to assist acclimatisation.

The relative humidity above the substrate when tested with a hygrometer to BS 8201:2011, Appendix A - must be a maximum of 75%, and the substrate where the boards are stored will have a moisture content of less than 2%.

Laying: Floor to be laid fully bonded and to be fitted in accordance with BS 8201:2011 Code of Practice for Flooring of Timber, Timber Products and wood based panel products. **We always recommend this method where possible**

Moisture: Moisture content at the time of laying to be 6-8%.

Pattern: As laid.

Adhesive: SW 890 - The SW890 Wood Floor Adhesive is elastic; according to EN 14293 (soft); 1-component Silane based adhesive for parquet.

Method of finishing: Prefinished boards with builders clean.

Bonding: The engineered boards are to be fully bonded direct to the substrate with SW890 adhesive using a 6mm notched trowel to ensure that a full solid bed of adhesive is present under each board.

Any adhesive that finds its way onto the surface of the boards should be allowed to dry but not harden then it can be easily removed without damaging the surface of the boards.

Fitter: The wood flooring fitter will be responsible for ensuring that the site conditions comply with BS8201:2011.

The wood flooring fitter is responsible for using the wood boards to create a finished floor that complies fully with the architects/contractors instructions in accordance with BS8201:2011

The wood flooring fitter must ensure that the contractor understands what the finished floor will look like before starting fitting.

The wood flooring fitter is responsible for checking that every board is of the desired quality and suitable for use before, during and after fitting and if there is any doubt, boards should not be fitted.

Other requirements: *RELATIVE HUMIDITY* - The relative humidity above the substrate when tested with a hygrometer to BS 8201:2011, Appendix A - must be a maximum of 75%.

Expansion:	<p><i>PERIMETER</i>—A 10mm expansion gap is required around the perimeter of the floor and/or where the wood flooring meets differing materials.</p> <p><i>LONG ROOMS</i> - Should the floor dimensions exceed 8 linear metres in any one direction, then extra provision should be made for expansion and expansion gaps of up to 8mm should be designed into the floor.</p> <p><i>DAY WORK JOINTS</i> - Day work joints are not appropriate in this instance, but can be bridged if necessary</p> <p><i>CONSTRUCTION JOINTS</i> - Any construction joints that run across the floor <u>must not be bridged</u> and expansion joints should be installed at these points and designed to follow the line of the construction joint.</p>
Aesthetics:	It is the art of the fitter to ensure that fitting is conducted to achieve an acceptable blend of shade variation, colour and knotting which are all inherent characteristics of any natural wood product
DPM:	As designed into the floor

PROTECTION

Protective covering:	<p>Submit proposals - Remove at completion</p> <p>NEVER cover the floor with any impervious materials which could cause the boards to sweat and affect the structure of the boards</p> <p>NEVER create potential ‘Hot Spot’s’ by placing any thick or rubber backed rug’s on the finished floor which could cause a heat build up and damage the structure of the boards.</p> <p>If the finished floors are to be protected from other trades care should be taken by the main contractor to ensure that the boards are not damaged by any covering or by any of the trades.</p> <p>If the floor is to be covered – the under floor heating should not be run whilst any covering is in place and the covering should not be impervious.</p> <p>If a covering is to be used then a 2 – 3mm thick felt should be placed over the floor with a 3mm thick hardboard above that and the joints taped to stop any ingress of possible contamination.DO NOT USE ANY OTHER FORM OF COVERING</p>
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UNDER FLOOR HEATING

Acclimatisation	Before fitting Engineered wood flooring will require 7 to 10 days to acclimatise to the same conditions that they will experience in use.
Storage	The cartons of wood should not be received onto site until all wet trades have been completed

The cartons should then be stored in the same conditions that they will experience in use as described in BS8201:2011

The cartons of wood should be stored at least 50mm off the ground and supported along their whole length either on pallets or battens and the cartons should be no nearer than 500mm to any wall

The ends of the cartons should be opened to allow the air to penetrate into the boards

Before fitting The under floor heating system should be fully commissioned and fully operational with all components in place before any fitting commences

The under floor heating system should be switched off at least 48 hours before any fitting commences

During Fitting The under floor heating should remain off whilst the wood flooring is being fitted

After fitting No other trades should be allowed in the vicinity of the floor during this time
Once all fitting has been completed the floor should be left for 24 hours before it is walked on

Heat introduction The heating should not be switched on until 72 hours after fitting has been completed

The under floor heating should then be switch on at it's lowest heat probably approximately 18°C at finished floor level and the heat should then be gradually increased by 1°C every 24 hours and **THE HEAT SHOULD NEVER EXCEED 27°C AT FINISHED FLOOR LEVEL**

It is recommended that monitoring devices are designed into the floor to ensure that the temperature is controlled at finished floor level.

OTHER REQUIREMENTS

EUTR Any timber products placed on the European market must comply with the EUTR Regulations which came into force on March 3rd2013.

It is now an offence to place any illegally logged timber products onto the European market.

The Solid Wood Flooring Company operate a Responsible Purchasing Policy and conduct due diligence on its supply chain and will always supply timber products that have been legally logged.

The Solid Wood Flooring Company are FSC certified, members of the Timber Trade Federation and operate a Responsible Purchasing Policy, which is independently audited to ensure that they conform to the Timber Trade Federation requirements.

RESPONSIBILITIES

Specifier: The specifier should ensure that the wood floor specified is suitable for use.

Manufacturer: The manufacturer will take responsibility for the performance of the boards provided that they were received on site in good condition, stored in the correct manner and have been fitted in accordance with BS8201:2011

Contractor:	<p>The contractor will be responsible for ensuring that the wood boards are not received on site until all conditions are correct within the guidelines of BS8201:2011</p> <p>The contractor will be responsible for making sure the boards are kept safe on site.</p> <p>The contractor is responsible for the correct laying of the boards.</p> <p>The contractor is responsible for ensuring that the finished floor is correctly protected in between the completion of the fitting and the handover to the client.</p>
Fitter:	<p>The wood flooring fitter will be responsible for ensuring that the site conditions comply with BS8201:2011.</p> <p>The wood flooring fitter is responsible for using the wood boards to create a finished floor that complies fully with the architects/contractors instructions in accordance with BS8201:2011.</p> <p>The wood flooring fitter must ensure that the contractor understands what the finished floor will look like before starting fitting.</p> <p>The wood flooring fitter is responsible for checking that every board is of the desired quality and suitable for use before, during and after fitting and if there is any doubt, boards should not be fitted.</p>
Fitters/Builders clean	<p>On completion of fitting the surface of the boards should be vacuumed to remove any particles of wood or sawdust.</p> <p>The fitter should ensure that no residues from any of the fitting remains attached to the surface of the boards.</p> <p>The fitter should clean the boards with the recommended cleaner and ensure that the contractor and client (if appropriate) understand how the wood flooring should be cleaned and maintained.</p> <p>The contractor should request an Operations and Maintenance manual from The Solid Wood Flooring Company to give to the client to ensure that they know how to clean and maintain the wood floor.</p>
Covering the floor	<p>NEVER cover the floor with any impervious materials which could cause the boards to sweat and affect the structure of the boards. This includes dense rugs, rubber backed mats and bean bags which can produce hot spots on the floor.</p>
Item No. 17	<p>Providing and fixing wooden Platform with provision of steps made of framing the skeleton (plywood frame structure) with 18mm + 18mm thick MR grade plywood for vertical and horizontal plywood (patti) both side cover with 6mm + 6mm thick MR grade plywood for grooving as per design. Fixing properly without any air gap and finishing with selected 4.00 mm thick Veneer having melamine polish. Before installation, make hole/face plate for conduit pipes of electrical/networking cables</p>

with openable stud from platform Including all materials and labour etc. complete as per detail drawing and instruction of engineer-in charge.

Description of Item:

Providing and fixing **wooden platform with provision of steps**, constructed by framing the skeleton with **18mm + 18mm thick MR grade plywood (double layer)** for vertical and horizontal frame members (plywood patti). Both sides shall be covered with **6mm + 6mm thick MR grade plywood (double layer)** to achieve grooving design as per approved drawing.

The surface shall be finished with **selected 4.0 mm thick decorative veneer**, properly pasted and finished with **melamine polish** of approved shade and finish.

The platform shall be fixed firmly without any air gap. Necessary **holes/face plates for conduit pipes of electrical/networking cables** shall be provided with **openable studs** from platform for easy access.

The work shall be executed complete with all **materials, labour, tools, adhesives, polishing materials, and accessories** as per detailed drawing and instructions of Engineer-in-Charge.

Technical Specifications:

- **Frame Structure:** 18mm + 18mm thick MR grade plywood (double layer) for vertical and horizontal frame members.
- **Covering:** 6mm + 6mm thick MR grade plywood (double layer) on both sides.
- **Grooving Design:** As per approved architectural drawing.
- **Finish:** Selected 4.0 mm thick decorative veneer, melamine polish, shade as approved.
- **Access Provision:** Holes/face plates with openable studs for conduit/electrical/networking pipes.
- **Fixing:** Properly aligned, leveled, and finished without air gaps.
- **Standard:** All plywood shall be MR (Moisture Resistant) grade, ISI marked, conforming to IS:303 or equivalent. Veneer shall be of approved quality and finish.

Mode of Measurement:

- The work shall be measured in **Square Metres (Sqm)** of finished surface area of platform including steps.
- Openings for conduit pipes shall not be deducted.
- No extra payment shall be made for grooves, polishing, or wastage.

Rate to Include:

- Cost of MR grade plywood (18mm + 18mm and 6mm + 6mm), decorative veneer (4mm), adhesives, melamine polish, and all consumables.
- Labour charges for cutting, framing, fixing, polishing, and finishing complete.
- All tools, plants, scaffolding, transportation, leads, lifts, and incidental works.
- Making provision for electrical/networking conduit access with openable studs.

Unit of Measurement: Sqm

Item No. 18:- Providing 15mm thick cement plaster in single coat on Rough (Similar)side of single or half brick walls for interior plastering upto floor two level and finished even and smooth in (ii) Cement mortar 1:4 (1-cement :4-sand) including Floating Coat of neat cement slurry.

1.0. Materials

- 1.1.** Water shall conform to M-1. The cement mortar of proportion **1:4** shall conform to M-13.

2.0. Workmanship

2.1. Scaffolding:

Wooden bullies, bamboos, planks, trestles and other scaffolding shall be sound. These shall be properly examined before erection and use. Stage scaffolding shall be provided for ceiling plaster which shall be independent of the walls.

2.2. Preparation of back ground :

- 2.2.1.** The surface shall be cleaned of all dust, loose mortar droppings, traces of algae, efflorescence and other foreign matter by water or by brushing. Smooth surface shall be toughened by wire brushing if it is not hard and by hacking if it is hard. In case of concrete surface, if a chemical retarded has been applied to the form work, the surface shall be roughened by wire brushing and all the resulting dust and loose particles cleaned off and care shall be taken that none of the readers if left on the surface. Trimming of projections on brick/concrete surfaces where necessary shall be carried out to get an even surface.
- 2.2.2.** Raking of joints in case of masonry where necessary shall be allowed to dry out for sufficient period before carrying out the plaster work.

2.2.3. The work shall not be soaked but only damped evenly before applying the plaster. If the surface becomes dry, such area shall be moistened again.

2.2.4. For external plaster, the plastering operation shall be started from top floor and carried downwards. For internal plaster, the plastering operations may be started wherever the building frame and cladding work are ready and the temporary supports of the ceiling resting on the wall of the floor have been removed. Ceiling plaster shall be completed before starting plaster to walls.

2:3. Application of plaster :

2.3.1. The plaster about 15x15 cms. shall be first applied horizontally and vertically at not more than 2 meters intervals over the entire surface to serve as gauge. The surfaces of these gauges shall be truly in plane of the finished plastered surface. The mortar shall then be applied in uniform surface slightly more than the specified thickness, then brought to a true surface by working a wooden straight edge reaching across the gauges with small upward and sideways movements at a time. Finally, the surface shall be finished off true with a trowel or wooden float according as a smooth or a smooth or a sandy granular texture is required Excessive troweling or overworking the float shall be avoided. All corners, arises, angles and junctions shall be truly vertical or horizontal as the case may be and shall be carefully finished. Hounding or chamfering, corners, arises junctions etc. shall be carried out with proper templates to be size required.

2.3.2. Cement plaster shall be used within half an hour after addition of water and mortar or plaster which is partially set shall be rejected and removed forthwith from the site.

2.3.3. In suspending the work at the end of the day, the plaster shall be left out clean to the line both horizontally and vertically, when recommencing the plaster, the edges of the old work shall be scraped clean and wetted with cement putty before plaster is applied to the adjacent areas to enable the two to properly join together. Plastering work shall be closed at the end of the day on the body of the wall and nearer than **15 cm.** to any corners or arises. It shall not be closed on the body of features such as plaster bands and cornices not at the corners or arises. Horizontal joints in plaster work shall not also occur on parapet tops and copings as these invariably lead to leakage. No portion of the surface shall be left out initially to be packed up later on.

2.3.4. Each coat shall be kept damp continuously till the next coat is applied or for a minimum period of 7 days. Moistening shall commence as soon as plaster is

hardened sufficiently. Soaking of walls shall be avoided and only as much water as can be readily absorbed shall be used, excessive evaporation on the sunny or windward side of building in hot air or dry weather shall be prevented by hanging matting or gunny bags on the outside of the plaster and keeping them wet.

- 2.3.5.** The plastering work shall be in single coat on rough side of half brick wall for interior plastering up to floor two level, finished even and smooth **in C.M. 1:4.**

The smooth concrete shall be suitably say read to provide necessary bond before plastering.

for Floating Coat

2.3.6. The relevant specification shall be followed for materials and workmanship except that this work is providing smooth cement finish with floating coat of neat cement slurry.

2.3.7. The coat of cement and fine sand mortar of proportion V1 (1 5 mm thick about) shall be applied to the plastered surface with a trowel to provide uniform texture while the base coat is still plastic.

2.3.8. In any continuous face of wall the finishing treatment should be carried out continuously and day to day breaks made to coincide with architectural breaks in order to avoid unsightly Junctions.

2.3.9. Curing : All the plaster work shall be kept damp continuously for a period 7 days.

3.0. Mode of measurements & payment

3.1. The rate shall include the cost of all materials, labour and scaffolding etc. involved in the operations described under workmanship.

3.2. All plastering shall be measured in square meters unless otherwise specified. Length breadth or height shall be measured correct to a centimeter.

3.3. Thickness of the plaster shall be exclusive of the thickness of the key i.e. grooves or open joints in brick work, stone work etc. or space between laths. Thickness of plaster shall be average thickness with minimum **15 mm** at any point on this surface.

3.4. This item includes plastering for [all floors](#).

3.5. The measurement of wall plastering shall be taken between the walls or partition (dimensions before plastering being taken) for length and from the top of floor or skirting to ceiling for height. Depth of cover of cornices if any shall be deducted.

3.6. Soffits of stairs shall be measured as plastering on ceilings, following soffits shall be measured separately.

3.7. For jambs, soffits, sills etc. for openings not exceeding 0.5 sq. met each in area for ends of joints beams, posts, girders, steps etc. not exceeding 0.5 sq.mt each in area and for openings exceeding 0.5. sq.mt and not exceeding 3.00 sq.mt. in each area deductions and additions shall be made in the following manners.

(a) No deductions shall be made for ends of joints, beams, posts etc. and openings not exceeding 0.5 sq. mt each and no addition shall be made for reveals, jambs, soffits, sills etc. of these openings, for finish to plaster around ends of joints, beams posts etc.

(b) Deduction for openings exceeding 0.5 sq. mt but not exceeding 3 sq.mt. each shall be made as follows and no addition shall be made for reveals, jambs, soffits, sills etc. of these openings, (i) When both faces of all wall are plastered with same plaster, deduction shall be made for one face only, (ii) When two faces of wall are plastered with different types of plasters or if one face is plastered and the other pointed, deductions shall be made from the plaster or pointing on the side of frame for door, window etc. on which width of reveals is less than that on the other side but no deductions shall be made on the other side. Where width of reveals on both faces of all are equal, deductions of 50% of area of opening on each face shall be made from areas of plaster and / or pointing as the case may be.

3.8. For openings having door frames equal to or projecting beyond the thickness of wall, full deduction for opening shall be made from each plastered face of the wall.

3.9. In case of openings of area above 3 sq.mt. each, deduction shall be made for openings but jambs, soffits and sills shall be measured.

3.10 The payment shall be made for a unit of 1.0 sq.mt of work done over and above the finishing of work of base coat.

4.0. The rate shall be for a unit of **one sq. meter.**

Item No. 19:- Providing and applying textured finish of approved pattern using acrylic-based exterior/interior grade textured paint highlight in special effect (Royal Play) , including preparation of surface, filling of cracks with approved filler, sandpapering, and making good the surface, scaffolding etc., complete as per manufacturer's specification and direction of Engineer-in-Charge.

Sr. No.	Description	Specification
1	Type of Finish	Decorative Textured Paint Finish
2	Material Base	Acrylic Based Exterior / Interior Grade
3	Finish Type	Special Effect Finish (Royal Play Type)
4	Pattern	Approved Texture / Designer Pattern
5	Surface Preparation	Cleaning, Crack Filling & Sanding
6	Filler Material	Approved Crack Filler / Wall Putty
7	Primer Coat	Compatible Acrylic Primer as Required
8	Application Method	Roller / Trowel / Brush / Special Applicator
9	Surface Finish	Smooth Decorative Textured Appearance
10	Protection	Covering & Protection of Adjacent Surfaces
11	Scaffolding	Included Wherever Required
12	Shade / Colour	As approved by Architect / Engineer

Scope of Work

- Surface cleaning and preparation.
- Filling cracks and surface imperfections.
- Sand papering and smoothing the surface.
- Applying primer/base coat where required.
- Applying approved textured finish in selected pattern.
- Including scaffolding and surface protection.
- Including all materials, labour, tools and machinery.
- Complete in all respects as directed by Engineer-in-Charge.

Measurement

The item shall be measured in **Square Metre (Sq.M.)** of finished textured surface area.

Rate Includes

- Acrylic based textured paint material.
 - Crack filler, putty and primer.
 - Surface preparation and finishing.
 - Labour, scaffolding, tools and machinery.
 - Transportation and incidental charges.
 - Complete application as per approved pattern.
-

Approved Make

Approved make shall be equivalent to reputed decorative paint manufacturers such as:

- Asian Paints Royal Play
 - Berger
 - Nerolac
- or equivalent approved by the Engineer-in-Charge.

Item No. 20:- Providing and fixing ARMSTRONG optra acoustical wall panelling with square edge made of fiber glass substrate 25 mm thick and wrapped on the front side with an acoustically transparent and classified for fibre reaction class B - S1, D1 as per EN 13501, fabric with an option of colours and as per the selection having size 600mm x 1200mm providing a minimum sound absorption level of 0.90 NRC to be affixed to wall using wall panel impeller supplied by the manufacturer and construction adhesives as per the instruction laid down by the manufacturer.

Sr. No.	Description	Specification
1	Product Type	Acoustical Wall Panelling
2	Make	Armstrong OPTRA
3	Panel Size	600 mm × 1200 mm
4	Panel Thickness	25 mm Thick

Sr. No.	Description	Specification
5	Core Material	Fiberglass Substrate
6	Edge Type	Square Edge
7	Fabric Finish	Acoustically Transparent Fabric
8	Fire Classification	Class B-s1, d1 as per EN 13501
9	NRC Value	Minimum 0.90 NRC
10	Colour / Pattern	As selected by Architect
11	Fixing Method	Wall Panel Impeller & Construction Adhesive
12	Application Area	Conference Room / Auditorium / Office / Studio

Scope of Work

- Providing and fixing Armstrong OPTRA acoustic wall panels.
- Surface preparation and marking layout.
- Fixing impellers/clips and adhesive system.
- Proper alignment and joint finishing.
- Including all accessories, adhesives and fixing hardware.
- Including labour, scaffolding, transportation and machinery.
- Complete in all respects as per manufacturer's instructions.

Measurement

The item shall be measured in **Square Metre (Sq.M.)** of completed acoustical wall panelling area.

Rate Includes

- Armstrong OPTRA acoustic panels.
- Fabric wrapped fiberglass substrate panels.
- Wall impellers, construction adhesive and accessories.
- Labour, tools, machinery and scaffolding.
- Transportation, wastage and incidental charges.
- Complete fixing and finishing.

Approved Make

- Armstrong OPTRA
or equivalent approved make as directed by the Engineer-in-Charge.

Item No. 21:- Providing & Fixing of Armstrong Soft Fibre Acoustical Suspended Ceiling System with Optra (Bevelled Tegular) Edge Tiles With Armstrong 15mm Exposed Grid having tiles of Humidity Resistance (RH) of 95%, NRC 0.9 - 1.0, Light Reflectance $\geq 85\%$, Colour White, Fire Performance UK Class 0 / Class 1 (BS 476 pt - 6 & 7) in module size of 300 x 1200 x 15mm , suitable for Green Building application, with Recycled content of 43% (GW) The tile shall be laid on Armstrong Silhouette profile grid system with 15mm white flanges incorporating a 6mm central reveal in white/black colour and with a web height of 45mm and a load carrying capacity of minimum 15.68 Kgs/M2 with a minimum pull out strength of 100 kgs. Silhouette, Main Runners & Cross Tees to have mitred ends & “birds mouth” notches to provide mitred cruciform junctions. The T Setcions have a Galvanizing of 90 grams per M2 and need to be installed with Suspension system of Armstrong make including of all as directced by engineer-in-charge.

Sr. No.	Description	Specification
1	Type	Soft Fibre Acoustical Suspended Ceiling
2	Make	Armstrong
3	Tile Type	OPTRA Bevelled Tegular Edge Tile
4	Tile Size	300 mm × 1200 mm
5	Tile Thickness	15 mm
6	Humidity Resistance	RH 95%
7	NRC Value	0.90 – 1.00
8	Light Reflectance	$\geq 85\%$
9	Colour	White
10	Fire Performance	UK Class 0 / Class 1 (BS 476 Part 6 & 7)
11	Grid System	Armstrong Silhouette 15 mm Exposed Grid
12	Reveal	6 mm Central Reveal
13	Grid Web Height	45 mm
14	Load Carrying Capacity	Minimum 15.68 Kg/Sq.M.

Sr. No.	Description	Specification
15	Pull Out Strength	Minimum 100 Kg
16	Galvanizing	90 grams/Sq.M.
17	Sustainability	Green Building Compatible with 43% Recycled Content
18	Suspension System	Armstrong Approved Suspension Accessories

Scope of Work

- Providing and fixing Armstrong acoustical ceiling tiles.
- Providing and fixing silhouette grid suspension system.
- Fixing hangers, perimeter trims and accessories.
- Proper levelling, alignment and finishing of ceiling.
- Including cutting around light fixtures, diffusers and services.
- Including all labour, tools, machinery and scaffolding.
- Complete in all respects as directed by Engineer-in-Charge.

Measurement

The item shall be measured in **Square Metre (Sq.M.)** of completed suspended ceiling area.

Rate Includes

- Armstrong OPTRA acoustical tiles.
- Armstrong silhouette grid system.
- Suspension system, hangers and trims.
- Cutting, wastage and edge finishing.
- Labour, machinery, scaffolding and transportation.
- Complete installation and finishing.

Approved Make

- Armstrong
or equivalent approved make as directed by the Engineer-in-Charge.

