

SCHEDULE OF RATES FOR BUILDING WORKS (w.e.f. 15/06/2009)
(ERRATA/AMMENDMENT/ADDENDUM NO.4)

A new Chapter covering the items for Prefabricated building construction technology with (a) Cold Formed Light Gauge Steel Framed structure using Cement Fibre Boards with Rock Wool Insulation in Walls and (b) Structural Steel Hollow section frame using PPGI PUF sandwich Panel/Cement Fibre board Form Concrete Panels in walls is introduced in the Building S.O.R. as a New Chapter No.XXIV as under :-

A) Cold Formed Light Gauge Steel Framed Buildings

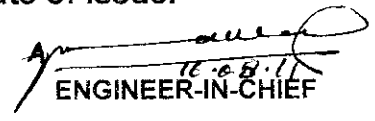
Item No.	Description	New Rate	
		Unit	Rate
24.1	Design, Supply and fixing of factory finished custom designed Cold Form Light Gauge Steel Framed super structure manufactured out of minimum 0.75 thick (load bearing members shall not be less than 1.2 mm thick) Pre-treated factory finished Bare Galvalume/hot dipped GI hi-tensile steel sheet (AZ150gsm-Aluminum Zinc alloy coated steel and 550 Mpa yield strength) conforming to AISI specifications and IBC 2009 for cold formed steel framing & construction and shall also be as per IS:8750-1987, IS:800-1984 and IS:801-1975. The wind load shall be as per provisions of IS:875 (part-III) The framing section shall be cold form C-type having minimum depth of (89mm depth x 39 mm flange x 11 mm lip) in required length as per structural design requirements, duly punched with simple/slot at required locations as per approved drawings. the slots will be along centre line of the webs and shall be spaced minimum 250 mm away from both ends of the member. The frame can be supplied in Panelized or knock down condition in specified dimensions and fastened with designed screws (minimum 4 mm Dia. galvanized wafer head steel screws	Kg	212
24.1.1	Add extra for each kg of structural frame for providing approved uplift connector, extra bracings & SS expandable anchor bolts for building in seismic zone III, IV and V or wind speed in excess of 90 km per hour as per design	Kg	16.6
24.2	Supply and installation of moisture/fire resistant heavy duty cement fiber board (High Pressure Steam Cured) conforming to IS 14862:2000 in wall panels on both faces of galvanized cold formed light gauge steel frame structure to form wall/partition wall on external and internal faces of the frame, fixed with self drilling/tapping screws/fasteners of approved make. The hollow wall space between two cement fiber board will be provided with 50 mm thick Resin bonded rock wool insulation conforming to IS 8183 and of density not less than 48 kg/cum. All exterior faces of the wall/frame shall essentially be provided with breathable vapour barrier underneath the cement fiber board. The installation of the vapour barrier should conform to the provisions of International Building Code 2009 and as per design. The joints of the cement boards must be sealed with polymer fortified thin set mortar and self adhesive alkalai resistant dry wall fiber mesh tape of minimum 100 mm width. All interior cement board corners of installed wall panels must be reinforced with a galvanized angular metal strips of 25 mm x 25 mm x 0.50 mm screwed on both adjoining wa		
	A) moisture/fire resistant cement fiber board with external & internal both panels 12 mm thick	Sqm	2602
	B) moisture/fire resistant cement fiber board with external panel 12 mm thick & internal panel 9 mm thick	Sqm	2487
	C) moisture/fire resistant cement fiber board in partition walls 9 mm thick on either side	Sqm	2329

Item No.	Description	New Rate	
		Unit	Rate
24.3	Supply and installation of moisture/fire resistant lap siding 7.5 mm thick and width as per standard sizes made of cement fibre board with embossed decorative finish to give pleasing exterior finish fixed horizontally with staggered joints including minimum overlap of 32 mm on external cement fibre board conforming to IS 14862:2000 fixed with self drilling/tapping screws/fasteners of approved make complete in all respects.	Sqm	663
24.4	Supply & installation of silicon modified polymer pre-coated galvanised iron profile sheets for roofing(size,shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm +/- 5% total coated thickness (TCT) thick Galvalume coating 120gsm as per IS: 277 in 240mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns.Sheet should have protective guard film of 25 microns minimum to avoid scratches while transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge.The sheet shall be provide an underneath fibrous insulation slabs/Rolls of non combusible Rockwool,aluminium foil laminated placed over a metal mesh bed created between the purlins and then the sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55mm) with EPDM seal or with polymer coated J or L hooks, bolts and nuts 8mm diameter with bitumen and G.I.limpet washers or with G.I. limpet washers filled with white lead complete upto any pitch in horizontal/ vertical or curved surfaces excluding the cost of purlins, rafters and trusses and including cutting to size and sha	Sqm	854
B) PPGI PUF SANDWICH PANELLED PREFAB BUILDINGS			
24.5	Structural steel work (Confirming to IS 4923-1997) riveted, bolted or welded in rectangular hollow sections, in framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer complete in all respets as per the structural designs and as directed by Engineer in charge.	Kg	111
24.6	Providing and fixing PUF Insulated continuous sandwich panels for roofs of total thickness not less than 30 mm made out from continue line method.Panel shall have pre coated GI sheet on both side of Polyurethane foam with external face being corrugated in shape for GI and PU foam both material.The crest height of the panel shall be of 35mm minimum with 250mm c/c pitch. The Precoated sheet shall be of minimum 240 mpa steel grade confirming to IS 14246:1995 and shall have zinc coating of 120 gsm as per IS:277 , 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 micron.The PPGI Sheet shall have protective guard film of minimum 25 microns to avoid scratches while trasportation.The roof panels are laid over a frame work of trusses, columns and purlins fixed using 90mm self drilling bolt with rubber washer including all types of flashings. PU Foam must be self-extinguishing, fire retardant type having minimum density of 40 Kg/Cu.mt.(+, - 2 Kgs) including 0.25mm craft paper edging,self tapping screws of required length and nos.etc complete as per structural design and direction of Engineer-in-charge.		
A	PPGI sheet 0.5mm thick skin on both sides	Sqm	2555
B	PPGI sheet 0.35mm thick skin on both sides	Sqm	2276

Item No.	Description	New Rate	
		Unit	Rate
24.7	Providing and fixing PUF Insulated continuous sandwich panels for walls of total thickness not less than 50 mm and width 1.0 m made out from continue line method on automatic plant. Panel shall have pre coated GI sheet on both side of Polyurethane Foam confirming to IS 12436:1988. The Precoated sheet shall be of minimum 240 mpa steel grade confirming to IS 14246:1995 and shall have zinc coating of minimum 120 gsm as per IS:277:1992 , 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 micron. The PPGI Sheet shall have plastic protective guard film of minimum 25 microns to avoid scratches during trasportation. The panels shall be vertically joined together by tongue and groove joints. The PU Foam shall be self-extinguishing, fire retardant type having minimum density of 40 Kg/Cu.mt.(+, - 2 Kgs) including 0.25 mm thick craft paper edging on both edges. The panels shall be fixed to the steel frame structure with minimum 5mm thick self tapping GI screws of required length and nos. with minimum spacing of 300 mm c/c complete in all respects.		
A	PPGI sheet 0.5mm thick skin on both sides	Sqm	2566
B	PPGI sheet 0.5mm thick skin on both sides	Sqm	2289
24.8	Providing and fixing PUF Insulated continuous sandwich panels for walls of total thickness not less than 40 mm and width 1.0 m made out from continue line method on automatic plant. Panel shall have pre coated GI sheet on both side of Polyurethane Foam confirming to IS 12436:1988. The Precoated sheet shall be of minimum 240 mpa steel grade confirming to IS 14246:1995 and shall have zinc coating of minimum 120 gsm as per IS:277:1992 , 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 micron. The PPGI Sheet shall have plastic protective guard film of minimum 25 microns to avoid scratches during trasportation. The panels shall be vertically joined together by tongue and groove joints. The PU Foam shall be self-extinguishing, fire retardant type having minimum density of 40 Kg/Cu.mt.(+, - 2 Kgs) including 0.25 mm thick craft paper edging on both edges. The panels shall be fixed to the steel frame structure with minimum 5mm thick self tapping GI screws of required length and nos. with minimum spacing of 300 mm c/c complete in all respects		
A	PPGI sheet 0.5mm thick skin on both sides	Sqm	2496
B	PPGI sheet 0.35mm thick skin on both sides	Sqm	2218
24.9	Supply and installation of moisture/fire resistant solid wall 75mm thick non asbestos fibre reinforced aerated cement sandwich panel made out of light weight fibre reinforced aerated cement/concrete core composed of Portland cement, flyash, binders etc. and 4 mm thick non asbestos fiber cement board confirming to IS 14862;2000 AND ISO :8336:1993(E) on either side of the core ,having a tongue and groove on longitudinal side of the panels and fixed to steel structure frame by pre-coated wafer head self drilling/tapping fastners of minimum 100 mm length & 4 mm dia of approved make as per design. The joints of the cement boards must be sealed with polymer fortified thin set mortar and self adhesive alkalai resistant dry wall fiber mesh tape of minimum 100 mm width complete in all respects.	Sqm	2544

Item No.	Description	New Rate	
		Unit	Rate
24.10	Providing and fixing of Bottom and top U track for closing of end joints for cut PUF panels of size of 52mm x 30mm with 5mm lipping on Both edges. The U track shall be made out of 1 mm thick pre coated GI sheet. The Precoated sheet shall be of minimum 240 mpa steel grade confirming to IS 14246:1995 and shall have zinc coating of minimum 120 gsm as per IS:277:1992 , 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 micron. The PPGI Sheet shall have plastic protective guard film of minimum 25 microns to avoid scratches during transportation. The U track shall be fixed with suitable POP rivet with wall roof panels and plinth with Expandable fastners with minimum spacing of 450 mm c/c. The Utrack shall be fixed with suitable POP rivet with wall roof panels and plinth with Expandable fastners with minimum spacing of 450 mm c/c. The Utrack shall be fixed to RCC Plinth or Tie Beams by suitable anchor bolts		
	A of size of 52mm x 30mm with 5mm lipping on Both edges	Rmt	338
	B of 42mm x 30mm with 5mm lipping on Both edges.	Rmt	323

The above addendum shall be applicable with effect from the date of issue.

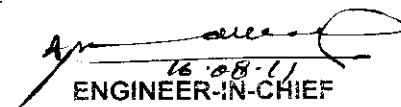

16.08.11
ENGINEER-IN-CHIEF
M.P. P.W.D. BHOPAL

777 Bhopal, Dated 16 /08/2011

Endt. No. 3/CommonSOR/Building/2010

Copy is forwarded to :-

1. P.A. to Hon'ble Minister, M.P. P.W.D. Bhopal
2. The Principal Secretary to Govt. of M.P. P.W.D. Bhopal
3. The Principal Secretary to Govt. of M.P. Housing & Environment, Bhopal.
4. The Secretary to Hon'ble Lokayukta, M.P. Bhopal
5. The Chief Technical Examiner, M.P. Bhopal.
6. The Accountant General, M.P. Gwalior/Bhopal.
7. The Secretary to Govt. of M.P. P.W.D. Bhopal.
8. The Commissioner, Bhopal
9. The Chief Engineer, M.P. P.W.D.
10. The Project Director, PMU, O/o E-in-C., M.P. P.W.D. Bhopal.
11. The Chief Engineer, M.P.R.D.C., M.P. Bhopal
12. The Chief Engineer, Rural Engineer Services, M.P. Bhopal
13. The Collector, Bhopal
14. The Superintending Engineer, M.P. P.W.D. Capital Project Circle, CPA Bhopal.
15. The Superintending Engineer, M.P. P.W.D. NH & Bridge Circle
16. The Divisional Project Engineer, M.P. P.W.D. PIU
17. The Executive Engineer, M.P. P.W.D. Division


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