CHAPTER 23 : FERROCEMENT WORKS

Item No.	Description of Item	Unit	Unit Rate (Dhaka, Mymensingh)	Unit Rate (Chattogram, Sylhet)	Unit Rate (Khulna, Barisal, Gopalgonj)	Unit Rate (Rajshahi, Rangpur)
23.1	Supplying, fitting & fixing of pre-cast ferrocement roof panel which is made by using vibration table & steel shutter with minimum cement content relates to mix ratio 1:2 for flange having minimum compressive strength 30 MPa (28 days standard cube strength) and cement conforming to BDS EN-197-1-CEM-I, 52.5N (52.5MPa)/ASTM-C150 type- 1, best quality coarse sand of equivalent F.M. 2.2, 2 layers of 18 BWG galvanized/epoxy coated wire mesh having minimum yield strength fy= 450 MPa & having 2 meshes per 25 mm and reinforced cement concrete works for rib with minimum cement content relates to mix ratio 1:1.5:3 having minimum f'cr = 30 MPa and satisfying a specified compressive strength f'c = 25 MPa, best quality coarse sand of equivalent F.M. 2.2 and 12 mm down well graded stone chips conforming to ASTM C-33, supplying, fabrication and fixing to details as per design, deformed bar reinforcement BDS ISO 6935-2:2006, including straightening and cleaning rust, if any, bending and binding in position with supply of 24 nosdays with supply of GI wires, remove the shuttering of ferrocement L-panel, lifting the panel to floor/roof level, keeping on proper position, the cost of water, electricity and other charges all complete as per design, drawing and accepted by the Engineer-in-charge. illing with mortar (1:2), casting of 25 mm thick as screeding (1:1.5:3) using 6 mm down stone chips and M.S. rod (fy=400 MPa) with fabrication over F.C. panel including the cost of reinforcement & wire mesh, curing at least for 7 days including the cost of water, electricity and other charges all complete as per design, drawing and accepted by the Engineer-in-charge.					
23.1.1	For ground floor, span up to 3810 mm for floor/roof slab.	sqm	Tk. 2,833.00	Tk. 2,814.00	Tk. 2,750.00	Tk. 2,742.00
23.1.2	Add for each additional span length of 150 mm long direction (3810 mm<span ≤ 4800 mm)	sqm	Tk. 9.00	Tk. 9.00	Tk. 9.00	Tk. 9.00
23.1.3	Add for each additional floor above ground floor	sqm	Tk. 40.00	Tk. 40.00	Tk. 40.00	Tk. 40.00
23.2	Supplying, fitting & fixing of 20 mm thick **ferrocement folded plate** roof which is made by using vibration table & steel shutter with minimum cement content relates to mix ratio 1:2, having minimum compressive strength of 30 MPa (28 days standard cube strength) and cement conforming to BDS EN-197-1-CEM-I, 52.5N (52.5MPa)/ASTM-C 150 type- 1, best quality coarse sand of equivalent F.M. 2.2, 1 layer of 20 BWG galvanized/epoxy coated wire mesh having minimum yield strength fy=450 MPa & having 2 meshes per 25 mm, fabrication and fixing to details as per design, deformed bar reinforcement BDS ISO 6935-2:2006, including straightening and cleaning the rust, if any, bending and binding in position with supply of 24 BWG GI wires, removing the shutter, lifting, keeping on proper position, curing at least for 7 days including the cost of water, electricity and other charges all complete as per design, drawing and accepted by the Engineer-in-charge.					
23.2.1	For ground floor, span up to 3810 mm	sqm	Tk. 2,271.00	Tk. 2,256.00	Tk. 2,214.00	Tk. 2,213.00
23.2.2	Add for each additional span length of 150 mm long direction (3810 mm < span ≤ 4800 mm)	sqm	Tk. 9.00	Tk. 9.00	Tk. 9.00	Tk. 9.00
23.2.3	Add for each additional floor above ground floor	sqm	Tk. 40.00	Tk. 40.00	Tk. 40.00	Tk. 40.00

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23.3	Supplying, fitting & fixing of 20 mm thick **ferrocement corrugated sheet roof** which is made by using vibration table & steel shutter with minimum cement content relates to mix ratio 1:2, having minimum compressive strength of 30 MPa (28 days standard cube strength) and cement conforming to BDS EN-197-1-CEM-I, 52.5N (52.5MPa)/ASTM-C 150 type-1, best quality coarse sand of equivalent F.M. 2.2, 1 layer of 20 BWG galvanized/epoxy coated wire mesh having minimum yield strength fy=450 Mpa & having 2 meshes per 25 mm and supplying, fabrication and fixing to details as per design, deformed bar reinforcement BDS ISO 6935-2:2006 including straightening and cleaning rust, if any, bending and binding in position with supply of 24 nos GI wires, removing the shutter, lifting on ground floor roof, keeping on proper position, curing at least for 28 days including the cost of water, electricity and other charges all complete as per design, drawing and accepted by the Engineer-in-charge.					
23.3.1	For ground floor, span up to 3810 mm for floor/roof slab.	sqm	Tk. 1,849.00	Tk. 1,840.00	Tk. 1,817.00	Tk. 1,816.00
23.3.2	Add for each additional floor above ground floor	sqm	Tk. 40.00	Tk. 40.00	Tk. 40.00	Tk. 40.00
23.4	Supplying, fitting & fixing of pre-cast **Ferrocement L-Panel** which is made by using vibration table & steel shutter with minimum cement content relates to mix ratio 1:2 for flange having minimum compressive strength of 30 MPa (28 days standard cube strength) and cement conforming to BDS EN-197-1-CEM-I, 52.5N (52.5MPa)/ASTM-C 150 type- 1, best quality coarse sand of equivalent F.M. 2.2, 2 layers of 20 BWG galvanized/epoxy coated wire mesh having minimum yield strength fy=450 Mpa & having 2 meshes per 25 mm and reinforced cement concrete works for rib with minimum cement content relates to mix ratio 1:1.5:3 having minimum f'cr = 30 MPa and satisfying a specified compressive strength f'c = 25 MPa, best quality coarse sand of equivalent F.M. 2.2 and 12 mm down well graded stone chips conforming to ASTM C-33, supplying, fabrication and fixing to details as per design, deformed bar reinforcement BDS ISO 6935-2:2006 including straightening and cleaning rust, if any, bending and binding in position, curing at least for 28 days with supply of GI wires, remove the shuttering of ferrocement L-panel, lifting the panel to floor/roof level, keeping on proper position, the cost of water, electricity and other charges all complete as per design, drawing and accepted by the Engineer-in-charge.					
23.4.1	For ground floor, span up to 3810 mm for floor/roof slab.	sqm	Tk. 1,612.00	Tk. 1,605.00	Tk. 1,576.00	Tk. 1,572.00
23.4.2	Add for each additional floor above ground floor	sqm	Tk. 40.00	Tk. 40.00	Tk. 40.00	Tk. 40.00

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23.5	Supplying, making and fitting fixing of **ferrocement door/window frame** 155 mm x 65 mm which is made by using M.S. rod (fy = 400 MPa) fabrication work minimum cement content relates to mix ratio 1:2 cement conforming to BDS EN-197-1-CEM-I, 52.5N (52.5MPa)/ ASTM-C 150 type–1, coarse sand (F.M. 2.2), cutting, bending, binding of one layer 20 BWG galvanized / epoxy coated wire mesh having minimum yield strength fy=450 MPa & 12 mm c/c gap in both directions with 24 BWG. G.I. wire, jute hassain, polythene sheet, placing of 100 mm long welded iron hinges including 6 mm dia M.S. rod clamp fittings, fixing in position, casting with neat cement finishing demoulding and lean cement sand (1:8) cement, sand (F.M. 1:2) and curing at least for 28 days etc. all complete including the cost of water, electricity, testing and other charge as per design, drawing and accepted by the Engineer-in-charge. (Considering x- section of the frame is 153 mm x 64 mm).	meter	Tk. 707.00	Tk. 703.00	Tk. 680.00	Tk. 679.00
23.6	25mm thick **cast-in-situ ferrocement wall** with minimum cement content relates to mix ratio 1:2, cement conforming to BDS EN-197-1-CEM-I, 52.5N (52.5MPa)/ASTM-C 150 type–1, and best quality coarse sand (F.M. 2.2) M.S. rod fabrication in accordance with BDS, ISO 6935-2:2006 straighting and cleaning rust if any, bending and binding in position with supply of 8 mm dia M.S. rod 250 mm c/c vertically, 6 mm dia 250 mm c/c horizontally, 24 nos G.I. wire splices laps etc. 2 layers of 20 BWG galvanized wire mesh having minimum yield strength fy=450 Mpa & 2 mesh per 25 mm, casting and finishing the both surfaces with cement sand (F.M.-1.2) mortar (1:3) and curing at least for 21 days, including the cost of water, electricity and other charges in all complete as per drawing, design and accepted by the Engineer-in-charge.	sqm	Tk. 2,066.00	Tk. 2,050.00	Tk. 2,004.00	Tk. 2,003.00
23.7	Supplying, fitting & fixing of 25 mm thick **pre-cast ferrocement wall panel** with minimum cement content relates to mix ratio 1:2, cement conforming to BDS EN-197-1-CEM-1, 52.5N (52.5MPa)/ ASTM-C 150 type–1 and best quality coarse sand (F.M. 2.2) and 2 layers of 20 BWG galvanized wire mesh having minimum yield strength fy=450 Mpa & 2 mesh per 25 mm, including cutting, binding, bending, with 24 B.W.G. G.I. wire, casting and finishing the both surfaces with cement sand (F.M.-1.2) Mortar (1:3) and curing at least for 21 days before lifting, fitting & fixing the Ferrocement plate in proper position with making rib, supply of 8 mm dia M.S. rod 250 mm c/c vertically, 6 mm dia 250 mm c/c horizontally fabrication in accordance with BDS, ISD 6935-2.2006 straighting and cleaning rust if any, bending and binding in position with supply of G.I. wire etc. the cost of water, electricity and other charges, complete in all respect and accepted by the Engineer-in-charge					
23.7.1	Ground Floor	sqm	Tk. 1,805.00	Tk. 1,795.00	Tk. 1,768.00	Tk. 1,767.00
23.7.2	Add for each additional floor above ground floor	sqm	Tk. 20.00	Tk. 20.00	Tk. 20.00	Tk. 20.00

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23.8	90 mm thick partition wall with **ferrocement sandwich panel wall (cast in situ)** using mortar having compressive strength not less than 15.0 N/mm^2 and fitting-fixing of EPS sheet size (3000 mm x 1200 mm x 63 mm),8 mm M.S. bar and its fabrication in both side with 20 BWG galvanized wire mesh having minimum yield strength fy=450 Mpa & 2 mesh per 25 mm, in compliance with ASTM C129 fairly uniform thickness and water absorption not more than 7% including necessary scaffolding, cleaning and curing at least for 7 days including cost of water, electricity and other charges etc. in all complete accepted by the Engineer-in-charge.					
23.8.1	Ground Floor	sqm	Tk. 2,400.00	Tk. 2,386.00	Tk. 2,345.00	Tk. 2,344.00
23.8.2	Add for each additional floor above ground floor	sqm	Tk. 15.00	Tk. 15.00	Tk. 15.00	Tk. 15.00
23.9	40 mm **ferro-cement slab** on soil-cement stabilized sub-grade in ground floor etc. with minimum cement content relates to mix ratio 1:2 having minimum compressive strength of 30 MPa (28 days standard cube strength) and cement conforming to BDS EN-197-1-CEM-1, best quality coarse (F.M. 2.2) sand, 2 layer of 20 BWG galvanized/epoxy coated wire mesh having minimum yield strength fy=450 Mpa & having 2 mesh per 25 mm with minimum clear cover 12 mm both top & bottom, true to desired level, placing, compacting, curing at least for 7 days in all floors including cost of water, electricity and other charges etc. all complete and accepted by the Engineer-in-charge.	sqm	Tk. 1,394.00	Tk. 1,386.00	Tk. 1,370.00	Tk. 1,369.00
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