SUB HEAD: 22.0 WATER PROOFING

BUILDING WORK 22.0 Water Proofing

Item No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.
110.					Code.	1/2.

- 22.1 Providing and laying integral cement based treatment for water proofing on horizontal surfaces at all levels as directed by Engineer-in-charge and consisting of:
 - I) Ist layer of 22 mm to 25 mm thick approved and specified rough stone slab over a 25 mm thick base of cement mortar 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound conforming toIS:2645 in the recommended proportion over the leveling course (leveling course to be paid separately). Joints sealed and grouted with cement slurry mixed with water proofing compound.
 - II) 2nd layer of 25 mm thick cement mortar 1:3 (1 cement:3 coarse sand) mixed with water proofing compound in recommended proportions.
 - III) Finishing top with stone aggregate of 10 mm to 12 mm nominal size spreadidng @ 8 cudm/sqm thoroughly embedded in the 2nd layer.

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	- ·	-				
22.1.1	Using rough kota sotne. Details of cost for 10.30 sqm. Materials:					
	tayer					
	Cement mortar 1:3 for fixing of stone					
	10x0.025=0.25	cum	0.25	2848.95	(2112)	712.24
	Kota stone slabs =10 sqm				(= · · =)	
	Wastage© 10% = 1 sqm					
	= 11 sqm	sqm	11	250.00	(1169)	2750.00
	Cartage 11x0.025 @ 2330 kg/m ³ =0.64 t		0.64	145.720	(2216)	93.261
	Cement mortar 1:3 10x0.025 = 0.25 cum					
	Wastage @ 12% =,0.03 cum					
	0.28 cum	cum	0.28	2848.95	(2112)	797.71
	Cement slurry.					
	Bed $2x10.30@ 2 \text{ kg/m}^2 = 41.20 \text{ kg}.$					
	joints					
	4x3.7x0.02x0.037 = 0.011					
	25x0.6x0.02x0.037=0.011					
	0.022 cum @ 1440kg/cum 31.68 kg.					
	72.88 = 0.073 t	tonne	0.073	4408	(0367)	321.78
	Carriage of cement	torine	0.073	145.720	(2209)	10.638
	Water proofing material:		0.070	140.720	(2200)	10.000
	Mortar =0.25 cum					
	0.28 cum /					
	Cement 0.53 cum @ 5.1 q/cum = 2.70 quintal					
	Slurry = 0.73quintal					
	3.43 quintal					
	@ 1 kg for 50 kg. of cementi.e. 4.85 kg.	kilogram	4.86	35.000	(1213)	170.10
	12 mm stone grit @ 8 cudm/sqm					
	1x10.30x8x1/1000=0.08 cum	cum	0.08	686.05	(0296)	54.884
	Carriage		0.03	0.000	(2202)	0.000
	Labour for base mortar & kota stone laying i.e.					
	slurry job.		5 4	442.00	(0400)	0000 00
	Mason II nd class	per day	5.4	413.00	(0123)	2230.20
	Beldar	per day	6.5	306.00	(0114)	1989
	Coolie	per day	2.16	318.00	(0115)	686.88
	Labour for top layer & spreading stone grit Mason II nd class	mar dov	1.08	413.00	(0422)	446.04
	8eldar	per day per day	1.08	306.00	(0123) . (0114)	330.48
	Bhishti	per day	0.45	318.00	(0114)	143.1
	Sundries	1 time	6.24	2.12	(9999)	13.2288
ი '	Y \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	/	,	2.12 4.	(5555)	. 0.2200

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Item No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.
	Add for water charges @ 1 %					107.50
	Total Add GST 12% on "X" (multiplying factor					10857.04 (1525.414
	0.1405) Total					
	Add for contractor's profit and over-heads @ 1	5% on "Y"				12382.45 (1857.37
	Cost of 10.3 sqm	0,000.				14239.82
	Cost of 1 sqm					1382.51
	Add labour cess @ 1%					13.83
	Rate including labour cess		Cov	Do 4206 20		1396.34
22.1.2	Using rough red sand stone		Say	Rs.1396.30	per sqm	
22.1.2	Details of cost for 10.30 sqm. Materials:					
	1st layer					
	Cement mortar 1;3 for fixing of stone 10x0.025=0.25	cum	0.25	2848.95	(2112)	712.24
	Kota stone slabs = 10 sqm					
	Wastage @ 10% = 1 sq = 11 sqm	eam	11	220.00	(1166)	2420.00
	Cartage 11x0.025 @ 2330 kg/m'=0.64 t	sqm tonne	0.64	145.72	(2216)	93.26
	Cement mortar 1:3 10x0.025 = 0.25 cum				, ,	
	Wastage © 12% =.0.03 cum 0.28 cum Cement slurry.	cum	0.28	2848.95	(2112)	797.71
	Bed $2x10.30@ 2 \text{ kg/m}^2 = 41.20 \text{ kg}.$					
	joints					
	4x3.7x0.02x0.037 = 0.011 25x0.6x0.02x0.037=0.011					
	0.022 cum					
	@ 1440kg/cum 31.58 kq.					
	72.83 = 0.073 t	tonne	0.073	4408.00	(0367)	321.78
	Carriage of cement	tonne	0.073	145.72	(2209)	10.64
	Water proofing material:					
	Mortar =0.25 cum 0.28 cum /					
	Cement 0.53 cum @ 5.1 q/cum = 2.70 quintal					
	Slkurry = 0.73qumtal					
	3.43 quintal					
	@ 1 kg for 50 kg. of cementi'e. 4.86 kq.	kilogram	4.86	35.00	(1213)	170.10
	12 mm stone grit @ 8 cudm/sqm 1x10.30x8x1/1000=0 08 cum	oum	0.08	686.05	(0296)	54.88
	Carriage	cum cum	0.08	0.00	(2202)	0.00
	Labour for base mortar & kota stone laying i.e.		0.00	0.00	(2202)	0.00
	slurry job.					
	Mason II nd class	per day	5.4	413.00	(0123)	2230.20
	Beldar	per day	6.5	306.00	(01 14)	1989.00
	Coolie	per djy	2.16	318.00	(0115)	686.88
	labour for top layer spreading stone grit	nor dov	1.00	442.00	(0122)	446.04
	Mason II nd class	per day	1.08	413.00	(0123)	446.04
	Beldar Bhishti	per day per day	1.08 0.45	306.00 318.00	(0114) (0115)	330.48 143.10
	Sundries	1 time	2.4	2.12	(9999)	5.09
	Add for water charges @ 1 %	i uiiie	2.4	2.12	(9999)	104.11
	Total					10515.51 (
	Add GST 12% on "X" (multiplying factor					1477.43
	0.1405) Total					11992.94 (
	n Y \	•	Λ	Aw	/ /	11992.94 (
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ltem No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.
	Add for contractor's profit and over-heads @ 1	5% on "Y"		ļ		1798.94
	Cost of 10.3 sqm					13791.89
	Cost of 1 sqm					1339.02
	Add labour cess @ 1%					13.39
	Rate including labour cess					1352.41
	B		-	Rs.1352.40		
22.2	Providing and laying integral cement based					
	by fixing specified stone slab 22 mm to 25 i			-		
	proofing compound conforming to IS:2645					
	(minimum) between stone slabs and the red	_			-	
	slurry mixed with water proofing compound		-			
	mortar 1:3 (1 cement : 3 coarse sand) 20 mi					
	proofing compound in recommended propo	ortion comp	nete at an i	eveis and a	s airectea c	у
0004	Engineer-in-charge:					
2.2.1	Using rough kota stone					
	Details of cost for 10.30 sqm.					
	Materials:					
	1st layer					
	Kota stone stabs=10 sqn					
	Wastage © 10% = 1 sqm = 11 sqm	cam	11	250.00	(1169)	2750.00
	Cartage 110.025 @ 2330kg/m3=0.64 t	sqm tonne	0.64	145.72	(2216)	93.26
	Cement slurry for jointing.	torine	0.04	145.72	(2210)	93.20
	6x3.70 -22.20 m					
	7x2.78 =19.45 m					
	41.66 m					
	41.65x0.025x0.012 =0.013 cum					
	Cement slurry fo' filling 20 mm gap. 10x0.02					
	=0.200 cum					
	0.213 cum					
	0.213cum@ 1440 kg/cum=306.70 or 0.307 t	tonne	0.31	4408	(0367)	1366.48
	Carriage	tonne	0.31	145.72	(2209)	45.17
	Cement plaste 1:3 with neat cement punning	sqm	10	265.48	(13.13.1)	2654.78
					+ 13.26)	
	(Rate as per item no. 13.16.1)					
	Water profing material					
	Cement slurry 0.31 t =310 kg.					
	Cement plaster 1:3@ 1 3.62 q/100 sqm136.20	kg.				
	446.20 kg					
	@ 1 kg per 50 kg of cen,ent=3.90 kg.	kilogram	8.90	35.00	(1213)	311.50
	Labour:					
	Fixing kota stone		0.50	000.00	(0404)	0000 50
	Mason II nd dass	per day	6.50	369.00	(0124)	2398.50
	Beldar	per day	6.50	306.00	(0114)	1989.00
	Coolie	per day	2.16	318.00	(0115)	686.88
	Labour:					
	For applying cement slurry Beldar	nor day	4.70	206.00	(0114)	1/20 20
		per day	4.70	306.00 2.12	(0114)	1438.20
	Sundries & scaffolding	1 time	7.00	2.12	(9999)	14.84 110.94
	Add for water charages @ 1% except on 'A' Total					13859.56
	Add GST 12% on "X" except A (multiplying					1574.27
	factor 0.1405)					13/4.2/
	Total					15433.83
	Add for contractor's profit and over-heads @ 1	5% on "V" △	xcent A			1916.86
	Cost of 10sqm	070 OH 1 E	voohi y			17350.68
	AMBI METUBUHI					17000.00
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Item					Rate	Cost
No.	Description	Unit	Qty	Rate	Code.	Rs.
	Cost of 1 sqm					1735.07
	Add labour cess @ 1%					17.35
	Rate including labour cess					1752.42
			Say	Rs.1752.40	per sqm	
22.2.2	Using rough red sand stone.					
	Details of cost for 10.30'sqm.					
	Materials:					
	1st layer Kota stone s!abs=10 sqm					
	Wastage @ 10% = 1 sqm					
	= 11 sqm	sqm	11	220.00	(1166)	2420.00
	Cart3ge 110.025 2330kg/m ³ =0.54 t	tonne	0.64	145.72	(2216)	93.26
	Cement slurry for jointing.	tornic	0.04	140.72	(2210)	30.20
	6x3.70 =22.20 m					
	7x2.78 =19.45 m					
	41.66m					
	41.66x0.025x0.012 =0.013 cum					
	Cement slurry for filling 20 mm gap. 10x0.02					
	=0.200 cum					
	0.213 cum					
	0.213 cum@ 1440 kg/cum=306.70 or 0.307 t	tonne	0.31	4408.00	(0367)	1366.48
	Carriage	tonne	0.31	145.72	(2209)	45.17
	Cement plaste 1:3 wittrneat cement punning	sqm	10	265.48	(13.13.1	2654.78 (
					+ 13.26)	
	(Rate as per item no. 13.16.1)					
	Water profmg material					
	Cement slurry 0.31 t =- 310 kg.					
	Cement plaster 1:3 @ 13.62 q/100 sc^ii 3C.20	kg				
	446.20 kg	leila amana	0.0	25	(4040)	244 50
	@ 1 kg per 50 kg of cement=8.90 kg Labour:	kilogram	8.9	35	(1213)	311.50
	Fixing kota stone					
	mason II nd class	per day	6.5	369.00	(0124)	2398.50
	Beldar	per day	6.5	306.00	(0124)	1989.00
	Coolie	per day	2.16	318.00	(0115)	686.88
	Labour;	por day	2.10	010.00	(0110)	000.00
	For applying cement slurry					
	Beldar	per day	4.7	306.00	(01 14)	1438.20
	Sundries & scaffolding	1 time	7	2.12	(9999)	14.84
	Add for water charages @ 1% except on 'A'				,	107.64
	Total					13526.26 (
	Add GST 12% on "X" except A (multiplying					1527.44
	factor 0.1405)					
	Total					15053.70 (
	Add for contractor's profit and over-heads @ 1	5% on "Y" e	xcept A			1859.84
	Cost of 10 sqm					16913.54
	Cost of 1 sqm					1691.35
	Add labour cess @ 1%					16.91
	Rate including labour cess					1708.27

Say Rs.1708.30 per sqm

- 22.3 Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C. kitchen and the like consisting of.
 - (i) 1st course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions.
 - (ii) II nd course of 20 mm cement plaster 1:3 (1 cement3 coarse sand)mixed with water proofing compound in recommended proportion;
 - (iii) Ilrd course of applying blown or/residual bitumen aplied hot at 1.7 kg. per sqm of area.
 - (iv) ivth course'of 400 micron thick PVC sheet.(Overlaps at joints of PVC shet should be 100 mm wide and pasted to each other with bitumen @ 1.7 kg/sqm).

Details of cost for 10 sqm					
Materials:					
Cement slurry @ 4.4 kg/sqm=44.00 kg or 0.04	4 t tonne	0.044	4408.00	(0367)	193.95
Carriage	tonne	0.044	145.72	(2209)	6.41
Cement plaster 1:3 (20 mm thick)	Sjn'i	10	225.37	(13.13.1)	2253.72 (A)
{Rate as per item no. 13.13.1 SH finisinng)					
Bitumen blow or/and residual bitumen =					
10x1.70=17 kg = 0.017 t	tonn^	0.017	34790.00	(0313)	591.43
Carriage 0f tar/bitumen	tonne	0.017	163.93	(2211)	2.79
P.V.C. 400 micron thick sheet	sqm	10	45.00	(3002)	450.00
Carriage	1 time	5	2.12	(9999)	10.60
Water proofing compound @ 1 kg per 50 kg or	•				
cement used					
Cement slurry = 44 kg					
Cement plaster 1:3 (20 mm thick)					
10x(13.62x100)/100=136.2/180.2kg	kilogram	3.6	35.00	(1213)	126.00
Labour:					
Printer	<i>02'</i> 03)'	0.2	391.00	(0131)	78.20
Beldar	per day	1.33	306.00	(01 14)	406.98
Mistry	per day	0.06	306.00	(0130)	18.36
Sundries	1 time	2.8	2.12	. (9999)	5.94
Add for water charages @ 1 % for except on 'A	Α'				18.91
Total					4163.28 (X)
Add GST 12% on "X" except A (multiplying					268.29
factor 0.1405)					
Total					4431.58 (Y)
Add for contractor's profit and over-heads @ 1	5% on "Y" e	xcept A			326.68
Cost of 10 sqm					4758.26
Cost of 1 sqm					475.83
Add labour cess @ 1%					4.76
Rate including labour cess					480.59

Say Rs.480.60 per sqm

22.4 Providing and Placing in position suitable PVC water stops for construction/expansion joints between two RCC memberrs and fixed to the reinforcement with binding wire before pouring concrete etc. complete

22.4 1 Serrated with central of (225 mm wide, 8-

11 mm thick)

Details of cost for 100 metre

Materials:

Water stope serrated with bulb	metre	100.00	200.00	(7427)	20000.00
Labour:					
Beldar	per day	2	306.00	(0114)	612.00
Sundreis & wire etc.	1 time	10	2.12	(9999)	21.20
Total					20633.20
Add for water charges @ 1%					206.33

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Item					Rate	Cost
No.	Description	Unit	Qty	Rate	Code.	Rs.
	Add GST 12% on "X" (multiplying factor					2927.95
	0.1405)					
	Total	50/ II)/II				23767.49 (
	Add for contractor's profit and over-heads @ 1	5% on "Y"				3565.12
	Cost of 100 m					27332.61
	Cost of 1 m		0	D- 070 00		273.33
	Note: Analysis for the following items is some		Say	Rs.273.30	per metre	
	Note: Analysis for the following items is same except code Nos.					
22.4.2	Dumb bell with Central bulb (180 mm					
22.4.2	wide. 8 mm thick)					
	Details of cost for 100 metre					
	Materials:	metre	100	160.00	(7428)	16000.00
	Water stope serrated with bulb				(=0)	
	Labour:					0.00
	Beldar	per day	2	306.00	(0114)	612.00
	Sundreis & wire etc.	1 time	10	2.12	(9999)	21.20
	Add for water charges @ 1%					166.33
	Total					16799.53 (
	Add GST 12% on "X" (multiplying factor					2360.33
	0.1405)					
	Total					19159.87 (
	Add for contractor's profit and over-heads @ 1	5% on "Y"				2873.98
	Cost of 100m					22033.85
	Cost of 1 m					220.34
	Add labour cess @ 1%					2.20 222.54
	Rate including labour cess		Say	Rs.222.50	nor motro	_
22.4.3	Kickers (320 mm wide 5mm thick)		Say	NS.222.30	per metre	_
	Details of cost for 100 metie					
	Materials:					
	Water stope serrated with bulb	metre	100.00	160.00	(7429)	16000.00
	Labour:				,	
	Beldar	per day	2.00	306.00	(0114)	612.00
	Sundreis & wire etc.	1 time	10	2.12	(9999)	21.20
	Add for water charges @ 1 %					166.33
	Total					16799.53 (
	Add GST 12% on "X" (multiplying factor					2360.33
	0.1405)					
	Total					19159.87 (
	Add for contractor's profit and over-heads @ 1	5% on "Y"				2873.98
	Cost of 100 m					22033.85
	Cost of 1 m					220.34
	Add labour cess @ 1%					2.20
	Rate including labour cess		•	D . 000 F0	4	222.54
			Say	Rs.222.50	per metre	

22.5 Providing and laying in situ five course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg. per sqm, 2nd & 4th courses of bonding material© 1.60 kg. per sqm which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, third layer of glass ffibre tissuue course as specified, fifth, the top most layer of stone grit 6 mm and down size or pea-sized gravel sprad @ 6 dm³ per sqm including preparation of surface excluding grading for slope etc. complete.

Details of cost for 30 sqm

Materials:

Galss fibre tissue 30 sqm.

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Item No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.
	Add 10% for wastage = 3 sqm		•			
	Total = 33 sqm.	sqm	33	75.00	(7233)	2475.00
	Bitumen primer 0.4.30 = 12 kg.	litre	12	47.00	(0316)	564.00
	Bonding material 1.6 kq.x30x2 = 95 kg.	tonne	0.096	34790.00	(0313)	3339.84
	Bitumen (Blown/residual tvpe)					
	pea-size gravel	cum	0.18	800.00	(1177)	144.00
	Carnage of bitumen primer	tonne	0.12	163.93	(2211)	19.67
	Carriage of glass fibre	1 time	3	2.12	(9999)	6.36
	Carriage of pea-sized gravel	cum	0.18	163.93	(2311)	29.51
	Fuel(Steam coal)	quintal	0.29	440.00	(0370)	127.60
	Carriage of fuel	100 metre	0.029	0.00	(2220)	0.00
	Preparing roof surfafe, cutting grooves and making					
	good the same.	i i:me	51.75	2.12	(9999)	109.71
	Labour:					
	Painter	per day	2.7	391.00	(0131)	1055.70
	Beldar	per day	4.05	306.00	(0114)	1239.30
	Mistry	per day	0.23	306.00	(0130)	70.38
	Sundries, brushes etc.	1 time	2.6	2.12	(9999)	5.51
	Add for water charges @ 1%					91.87
	Total					9278.45 (X
	Add GST 12% on "X" (multiplying factor 0.140s	5)				1303.62
	Total	,				10582.07 (Y
	Add for contractor's profit and over-heads @ 1	5% on "Y"				1587.31 [`]
	Cost of 30 sqm					12169.38
	Cost of 1 sqm					405.65
	Add labour cess @ 1%					4.06
	Rate including labour cess					409.71
	•		Sav	Pc 400 70	noream	

Say Rs.409.70 per sqm

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22.6 Providing and laying in situ seven course water profing treatment with flass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 Kg. per sqm . 2nd . 4th S 6th courses of bonding material @ 1.50 kg. per sqm . which shall consist of blown typvv bitumen of grade 85/25 conforming to IS: 702 . third and fiuh layers of glass fibre tissue course as s;. scified . seventh , the top pea-sized gravel spread @ 6 dm' per sqm , including prepatation of surface excluding grading for slope etc. complete.

Details of cost for 30.00 sqm Cost of materials Glass fibre tissue (Two layers) 2x30 =60 sqm 75.00 Add 10 % for wastage 6 sqm 66 scjiin 66 (7233)4950.00 sqm Bitumen prmer $0.4 \times 30 = 12 \text{ kg}$ litre 12 47.00 (0316)564.00 Bonding material (Three courses) Bitumen (Blown or residual type) 34790.00 48x3 = 144 kgtonne 0.144 (0313)5009.76 Pea - size gravel 0.18 800.00 (1177)144.00 cum Carriage of bitumen primer 163.93 25.57 0.156 (2211)tonne Carriage of glass fibre tissue 2.12 6.36 1 time 3 (9999)Carriage of pea-size gravel cum 0.18 163.93 (2311)29.51 Fuel (steam coal) quintal 0.29 440.00 (0370)127.60 100 metre 0.00 Carriage of fuel 0.029 (2220)0.00 Preparing roof surface . cutting grooves and 1 time 51.75 2.12 (9999)109.71 making good the same Labour: 3.78 391.00 Painter per day (0131)1477.98 Beldar per day 5.67 306.00 (0114)1735.02 Mistry per day 0.32 306.00 (0130)97.92

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Item No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.
	Sundries , brushes etc .	1 time	2.6	2.12	(9999)	5.51
	Ado for water charges @ 1 %					142.83
	Total					
	Add GST 12% on "X" (multiplying factor 0.1405)					2026.82
	Total					16452.59 (Y
	Add for contractor's profit and over-heads @ 1	5% on "Y"				2467.89
	Cost of 30 sqm					18920.48
	Cost of 1 sqm					630.68
	Add labour cess @ 1%					6.31
	Rate including labour cess					636.99

Say Rs.637.00 per sqm

Say Rs.862.10 per sqm

22.7 Providing and laying in situ nine course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coa! of bitumen primer @ 0.40 kg. per sqm , 2nd , 4th . 6th . 8th course of bonding material @ 1.60 kg per sqm . which shall consist of blown tyoe bitumen of grade 85/25 conforming to IS :702 . third . fifith and seventh courses of fiass fibre tissue . as specified , ninth , the top most layer of stone grit 6 mm and down size or pea-sized gravel spread @ 6 dm⁷ per sqm including preparation of surface excluding grading for slope etc. compete.

Details of cost for 30.00 sqm Materials:					
Glass fibre tissue (three layers) 3x30					
= 90. sqm .					
Add 10% for wastage 9 sqm	sqm	99.00	75.00	(7233)	7425.00
Bitumen primer	litre	12.00	47.00	(0316)	564.00
Bitmen blown /residua! tvpe 4 coarse x 48 = 192 kg	tonne	0.19	34790.00	(0313)	6679.68
Pea - size gravel	cum	0.18	800.00	(1177)	144.00
Carnage of glass fibre tissue	1 time	4.00	2.12	(9999)	8.48
Carriage of pea - sized gravel	cum	0.18	163.93	(2311)	29.51
Carriage of bitumen and primer	tonne	0.20	163.93	(2211)	33.44
Fuel (Steam coai) 2x .192 = 384 quintal	quintal	0.38	440.00	(0370)	168.96
Carriage of fuel '=	100 metre	0.04	0.00	(2220)	0.00
Preparing roof surface . cutting , grooves and	1 time	51.75	2.12	(9999)	109.71
making good the same					
Labour:					
Painter	per day	4.86	391.00	(0131)	1900.26
Beldar	per day	7.29	306.00	(0114)	2230.74
Mistry	per day	0.10	306.00	(0130),	30.60
Sundries , brushes etc.	1 time	2.60	2.12	(9999)	5.51
Add for water charges @ 1 %					193.30
Total					19523.19 (X)
Add GST 12% on "X" (multiplying factor					2743.01
0.1405)					
Total					22266.20 (Y)
Add for contractor's profit and over-heads @ 1	5% on "Y"				3339.93
Cost of 30 sqm					25606.13
Cost of -1 sqm					853.54
Add labour cess @ 1%					8.54
Rate including labour cess					862.08

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Item	Description	Unit	Qty	Rate	Rate	Cost
No.	·		1		Code.	RS.

22.8 Providing and laying integral cement based water proofing treatment including prepatation of surface as required for treatment of roofs . balconies . terraces etc, consisting of following operations .a) Applying and grouting a slurry coat of neat cement using 2.75 kn/sqm of cement admixed with proprietary water proofing compound cleaning the surface before treatment . b) Laying cement concrete using broken bucks / brick bats 25 mm to 100 mm size with 50 % of cement mortar 1:5 (1 cement: 5 coarse sand) admixed with proprietary water proofing compound conforming to IS: 2645 over 20 mm thick layer of cement mortar of mix 1.5 (1 cement: 5 coarse sand) admixed with proprietary water froofing compound conforming to IS 2545 to reuired slope and treating similary the adjoining walls upto 300 mm height including rounding of junctions of walls ad slabs . c) After two days of proper curing applying a secoung coat of cement slurry admixed with proprietary water proofing compound conforming to IS: 2645. (d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement: 4 coarse sand) admixed with proprietary water proofing , compound conforming to IS: 2645 and finally finishing the surface with trowel with neat cement slurry and making of 300 x 300 mm square . (e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specifed by the Engineer-in-Charge.

22.8.1 With average thickness of 120 mm and minimum thickness at khurras point to be 65 ...

Details of cost for 10 sqm

Materials:					
i) Cement slurry					
cement	tonne	0.0275	4408	(0367)	121.22
Beldar	osr day	0.2	306.00	(0114)	61.20
ii) cement mortar 1:5 (1 cement : 5 coarse sa	•	0.224	1938.21	(2114)	434.16
iii) Roof	and J carri	0.22	1000.21	(= : : :)	101110
Details of cost for 10 sqm					
Materials:					
Brick bats/brick aggregate	cum	0.94	1197	(0285)	1125.18
Carriage	cum	0.94	178.19	(2260)	167.50
Cement mortar 1:5	cum	0.5	1938.21	(2114)	969.11
Labour:				,	
Beldar	per day	1.75	306.00	(0114)	535.50
Bhisti	per day	0.28	332.00	(0101)	92.96
Mason 1st class	per day	0.05	413.00	(0123)	20.65
Mason 2nd class	per day	0.05	369.00	(0124)	18.45
Mate -	per day	0.04	325.00	(0128)	13.00
Extra labour, for ramming					
Beldar	per day	0.25	306.00	(0114)	76.50
Sundries	1 time	13.65	2.12	(9999)	28.94
iv) Cement slurry					
Cement	tonne	0.0275	4408	(0367)	121.22
Beldar	per day	0.2	306.00	(0114)	61.20
v) 20 mm cement plaster 1:4					
(1 cement: 4 coarse sand)					
	sqm	10	207.81	(13.13.2)	2078.06 (A)
(Rate as per item no 13.13.2)					
vi) Water proofing compound					
27.50+27.50+69.40+124.00=248.40 kg @1 kg	g per				
bag of cement(50 kg)	kilogram	5	35.00	(1213)	175.00
Extra for making chequre for 10 sqm		_		()	
Mason IInd class	per day	0.36	369.00	(0124)	132.84
Beidar	per day	0.36	306.00	(0114)	110.16
Chequer plate	1 time	5.25	2.12	(9999)	11.13
Add labour for iayino 20 mm bed mortar				` ,	
Mason IInd class	per day	0.54	369.00	(0124)	199.26
Beldar	per day	0.54	306.00	(0114)	165.24
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	•	171			

Item No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.
	Bhisti	per day	0.45	332.00	(0101)	149.40
	Add for water charges @ 1% on all except 'A'					47.90
	Total					6915.77 (X
	Add GST 12% on "X" except A (multiplying fac	tor 0.1405)				679.70
	Total					7595.47 (Y
	Add for contractor's profit and over-heads @ 1	5% on "Y" e	except A			827.61
	Cost of 10 sqm					8423.08
	Cost of 1 sqm					842.31
	Add labour cess @ 1%					8.42
	Rate including labour cess					850.73

Say Rs.850.70 per sqm

22.9.1 Providing and laying in situ seven course water proofing treatment with APP (Atactic polypropylene) modified Polymeric membrane over roof consisting of first coat of bitumen primer @ 0.40Kg per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 1.5mm thick of 2.25 Kg/sqm weight consisting of five layers prefabricated with centre core as 20micron HMHDPE film sandwitched on both sides with polymeric mix and the polymeric mix is protected on both side with 20micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 100 grouted with cement mortar 1:3 (Icement:3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12mm layer of cement mortar 1:3 (1 cement: 3 fine sand) and finished neat which shall be paid for separately.

Details of cost for 30 sqm					
MATERIAL					
APP modified polymeric felt (two layers) 1.5					
mm thick = $2x30 = 60$ sqm					
Add 10% wastage = 6 sqm					
Total = 66 sqm	sqm	66.00	80.00	8200	5280.00
Bitumen primer 0.4x30 = 12	litre	12.00	47.00	0316	564.00
Bitumen (Blown/ residual type) 3x36 =108 kg = 0.108 tonne	tonne	0.11	34790.00	0313	3757.32
Carriage of bitumen primer	tonne	0.12	163.93	2211	19.67
Carriage of polymeric felt	L.S.	7.80	2.12	9999	16.54
Fuel (steam coal)	quintal	0.17	440.00	0370	76.56
Carriage of fuel	tonne	0.02	60.81	2200	1.06
Preparing roof surface, cutting grooves and	L.S.	134.55	2.12	9999	285.25
making good the same					
LABOUR					
Painter	Day	2.16	391.00	0131	844.56
Beldar	Day	3.24	306.00	0114	991.44
Mistry	Day	0.18	306.00	0130	55.08
Sundries, brushes etc	L.S.	6.76	2.12	9999	14.33
TOTAL	=				11905.80
Add 1 % for water charges	3				119.06
TOTAL	-				12024.86 (X)
Add GST 12% on "X" (multiplying factor 0.140)5)				1689.49
Total					13714.35 (Y)
Add for contractor's profit and over-heads @	15% on "Y"				2057.15
Cost for 30 sqm	1				15771.51
Cost for 1 sqm	1				525.72
Add labour cess @ 1%	, D				5.26
Rate including labour cess	8				530.98

Say Rs.531.00 per sqm

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Item	Description	Unit	Qty	Rate	Rate	Cost
No.			4.7		Code.	Rs.

22.9.2 Providing and laying in situ five course water proofing treatment with APP (Atactic Polypropylene) modified Polymeric membrane over roof consisting of first coat of bitumen primer @ 0.40Kg per sqm, 2nd & 4th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, 3rd layer of roofing membrane APP modified Polymeric membrane 2.0mm thick of 3.00 Kg/sqm weight consisting of five layers prefabricated with centre core as IOOmicron HMHDPE film sandwitched on both sides with polymeric mix and the polymeric mix is protected on both side with 20micron HMHDPE film. 5th, the top most layer shall be finished with brick tiles of class designation 100 grouted with cement mortar 1:3 (1 cement: 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12mm layer of cement mortar 1:3 (1 cement: 3 fine sand) and finished neat which shall be paid for separately as per DSR Item No. 12.19.

Details of cost for 30 sqm					
MATERIAL					
APP modified polymeric felt (two layers) 2.0					
mm thick =30 sqm					
Total = 33 sqm	sqm	33.00	120.00	(8201)	3960.00
Bitumen primer 0.4x30 = 12	litre	12.00	47.00	0316	564.00
Bitumen (Blown/ residual type) 1.20x30x2	tonne	0.07	34790.00	0313	2504.88
=72 kg = 0.072 tonne					
Carriage of bitumen primer	tonne	0.08	163.93	2211	13.77
Carriage of polymeric felt	L.S.	7.80	2.12	9999	16.54
Fuel (steam coal)	quintal	0.17	440.00	0370	76.56
Carriage of fuel	tonne	0.02	60.81	2200	1.06
Preparing roof surface, cutting grooves and	L.S.	134.55	2.12	9999	285.25
making good the same					
LABOUR					
Painter	Day	1.58	391.00	0131	617.78
Beldar	Day	2.37	306.00	0114	725.22
Mistry	Day	0.13	306.00	0130	39.78
Sundries, brushes etc	L.S.	6.76	2.12	9999	14.33
TOTAL					8819.16
Add 1 % for water charges					88.19
TOTAL					8907.35 (X)
Add GST 12% on "X" (multiplying factor					1251.48
0.1405)					
Total					10158.84 (Y)
Add for contractor's profit and over-heads @	15% on "Y"				1523.83
Cost for 30 sqm					11682.66
Cost for 1 sqm					389.42
Add labour cess @ 1%					3.89
Rate including labour cess					393.31

Say Rs.393.30 per sqm

22.9.3 Providing and laying in situ seven course water proofing treatment with APP (AtacticPolypropylene) modified Polymeric membrane over roof consisting of first coat of bitumen primer @ 0.40Kg per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 2.0mm thick of 3.00 Kg/sqm weight consisting of five layers prefabricated with centre core as 1 OOmicron HMHDPE film sandwitched on both sides with polymeric mix and the polymeric mix is protected on both side with 20micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 100 grouted with cement mortar 1:3 (1 cement: 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 (1 cement: 3 fine sand) and finished neat which shall be paid for separately.

Details of cost for 30 sqm

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Item	Description	Unit	Qty	Rate	Rate	Cost
No.		J	٦.,		Code.	Rs.
	MATERIAL					
	APP modified polymeric felt (two layers) 2.0					
	mm thick = $3x30 = 60$ sqm					
	Add 10% waistage = 6 sqm					
	Total = 66 sqm	sqm	66.00	120.00	(8201)	7920.00
	Bitumen primer 0.4x30 = 12	litre	12.00	47.00	(316)	564.00
	Bitumen (Blown/ residual type) 3course x 36 = 108 kg = 0.108 tonne	tonne	0.11	34790.00	(0313)	3757.32
	Carriage of bitumen primer	tonne	0.12	163.93	(2211)	19.67
	Carriage of polymeric felt	L.S.	7.80	2.12	(9999)	16.54
	Fuel (steam coal)	quintal	0.17	440.00	(0370)	76.56
	Carriage of fuel	tonne	0.02	60.81	(2200)	1.06
	Preparing roof surface, cutting grooves and making good the same	L.S.	134.55	2.12	(9999)	285.25
	LABOUR					
	Painter	Day	2.16	391.00	(0131)	844.56
	Beldar	Day	3.24	306.00	(0114)	991.44
	Mistry	Day	0.18	306.00	(0130)	55.08
	Sundries, brushes etc	L.S.	6.76	2.12	(9999)	14.33
	TOTAL					14545.80
	Add 1% for water charges					145.46
	TOTAL					14691.26 (
	Add GST 12% on "X" (multiplying factor 0.1405)					2064.12
	Total					16755.38 (
	Add for contractor's profit and over-heads @	15% on "Y"				2513.31 [`]
	Cost for 30 sqm					19268.69
	Cost for 1 sqm					642.29
	Add labour cess @ 1%					6.42
	Rate including labour cess					648.71
	•		Sav	Rs.648.70	per sam	

Say Rs.648.70 per sqm

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22.10 Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth courses of blown or / and residual bitumen applied hot at 1.45, 1.20 and 1.70 kg per square metre of area respectively, second and fourth courses of roofing felt type 2 grade I (fibre base self finished bitumen felt) six and final courses of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per sqm including preparation of surface, excluding grading, compete.

Details of cost for 30 sqm Blown bitumen applied hot (1.45+1.20+1.70)x30 = 130.5 kg. Blown type petroleum bitumen of penetration tonne **0.1305** 34790.00 0313 4540.095 85/25 of approved quality Bitumen felt type B grade I (fibre base self finished bitumen felt) 60 sqm. + Add for over lapping @ 10% = 6 sqm. Total =66 sqm Bitumen felt fibre base (vegetable or sqm 66 70.00 0318 4620 animal):Type 2 grade 1 Carriage of Tar bitumen tonne 0.215 163.93 2211 35.24495 $(0.131 t + 2.22 \times 0.001 \times 66 = 0.275t)$ Stone grit 6 mm and down size or pea sized 0.18 cum 800.00 1177 144 gravel 30x6=180cudm CARRIAGE:

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Item No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.
	Carriage of Stone aggregate below 40 mm nominal size	cum	0.18	0.00	2202	0
	Fuel (Steam coal) = 2 quintals/t of bitumen i.e. 0.1305=0.261q					
	Coal (steam)	quintel	0.261	440.00	0370	114.84
	Carriage of steam coal	tonne	0.0261	60.81	2200	1.587141
	Praparing roof surface, sutting groove and making good etc.	L.S.	134.55	2.12	9999	285.246
	LABOUR					
	Painter	day	4.32	391.00	0131	1689.12
	Beldar	day	6.48	306.00	0114	1982.88
	Mistry	day	0.36	306.00	0130	110.16
	Sundries, brushes etc.	L.Ś.	6.76	2.12	9999	14.3312
	TOTAL					13537.50 W
	Add 1 % Water charges on "W"					135.38
	TOTAL					13672.88 (X)
	Add GST on "X" (multiplying factor 0.1405)					1921.04
	TOTAL					15593.92 (Y)
	Add 15% CPOH on "Y"					2339.09
	TOTAL					17933.01
	Add Cess @ 1% on					179.33 Z
	Rate including labour cess					18112.34
	Cost of 30.00 Sqm.					18112.34
	Cost of 1.00 Sqm.					603.74
	Say		Say	Rs.603.70	per sqm	

22.11 Providing and laying six courses water proofing treatment with bitumen felt over roofs consisting of first, third and fifth courses of blown or / and residual bitumen applied hot at 1.45, 1.20 and 1.70 kg per square metre of area respectively, second and fourth courses of roofing felt type 2 grade II (glass fibre base self finished bitumen felt) and sixth and final course of stone grit 6 mm and down size or pea sized gravel spread at 6 cubic decimeter per sqm including preparation of surface but excluding grading, complete.

Details of cost for 30 sqm Blown bitumen applied hot (1.45+1.20+1.70)x30 = 130.5 kg. Blown type petroleum bitumen of penetration 85/25 of approved quality Bitumen felt type B grade I (fibre base self finished bitumen felt) 60 sqm. + Add for over lapping @ 10% = 6 sqm. Total =66 sqm	tonne	0.1305	34790.00	0313	4540.10
Bitumen felt fibre base (vegetable or	sqm	66	70.00	0318	4620.00
animal):Type 2 grade 1 Carriage of Tar bitumen (0.131 t+2.22x.001x66 = 0.275t)	tonne	0.334	163.93	2211	54.75
Stone grit 6 mm and down size or pea sized gravel 30x6=180cudm CARRIAGE:	cum	0.18	800.00	1177	144.00
Carriage of Stone aggregate below 40 mm nominal size Fuel (Steam coal) = 2 quintals/t of bitumen	cum	0.18	0.00	2202	0.00
i.e. 0.1305=0.261q Coal (steam)	quintel	0.261	440.00 60.81	0370 2200	114.84
Carriage of steam coal	tonne 718	0.0261	3		1.59 dition_2022

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Item No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.
	Praparing roof surface, sutting groove and	L.S.	134.55	2.12	9999	285.25
	making good etc.					
	LABOUR					
	Painter	day	4.32	391.00	0131	1689.12
	Beldar	day	6.48	306.00	0114	1982.88
	Mistry	day	0.36	306.00	0130	110.16
	Sundries, brushes etc.	L.S.	6.76	2.12	9999	14.33
	TOTAL					13557.01 V
	Add 1 % Water charges on "W"					135.57
	TOTAL					13692.58 (
	Add GST on "X" (multiplying factor 0.1405)					1923.81
	TOTAL					15616.39 (
	Add 15% CPOH on "Y"					2342.46
	TOTAL					17958.85
	Add Cess @ 1% on					179.59 Z
	Rate including labour cess					18138.44
	Cost of 30.00 Sqm.					18138.44
	Cost of 1.00 Sqm.					604.61
	Say		Say	Rs.604.60	per sqm	
22.12	Supplying and applying bituminous solution sqm.	n primer or	roof and /	or wall surfa	ace at 0.24	litre per

MATERIAL MATERIAL					
Bitumen solution primer of approved quality	litre	2.4	47.00	(0316)	112.80
CARRIAGE	L.S.	1.43	2.12	(9977)	3.03
LABOUR					
Painter	day	0.17	391.00	(0131)	66.47
Beldar	day	0.17	306.00	(0114)	52.02
Sundries brushes etc.	L.S.	13.52	2.12	(9999)	28.66
TOTAL					262.98 W
Add 1 % Water charges on "W"					2.63
TOTAL					265.61 (X)
Add GST on "X" (multiplying factor 0.1405)					37.32
TOTAL					302.93 (Y)
Add 15% CPOH on "Y"					45.44
TOTAL					348.37
Add Cess @ 1% on					3.48 Z
Rate including labour cess					351.86
Cost of 10.00 Sqm.					351.86
Cost of 1.00 Sqm.					35.19
Say		Say	Rs.35.20	per sqm	

22.13 Deduct for omitting in water proofing treatment final course of spreading stone grit 6 mm down size or pea sized gravel :

22.13.1 at 6 cudm per sqm

Details of cost for 10 sqm. MATERIAL Stone grit 6 mm and down size or pea sized 0.06 800.00 (1177)48 cum 6x10 = 60 cudmCarriage of Stone aggregate below 40 mm cum 0.06 0.00 (2202)nominal size Labour for screening and spreading grit L.S.

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Item No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.
	Sundries	L.S.	6.76	2.12	(9999)	14.3312
	TOTAL				(0000)	108.08
	Add 1 % Water charges on "W"					1.08
	<u> </u>					
	TOTAL					109.16
	Add GST on "X" (multiplying factor 0.1405)					15.34
	TOTAL					124.50
	Add 15% CPOH on "Y"					18.67
	TOTAL					143.17
	Add Cess @ 1% on					1.43
						_
	Rate including labour cess					144.61
	Cost of 10.00 Sqm.					144.61
	Cost of 1.00 Sqm.					14.46
	Say		Say	Rs.14.50	per sqm	
122	at 0 andre man area					
2.13.2	• •					
	Details of cost for 10 sqm.					
	MATERIAL					
	Stone grit 6 mm and down size or pea sized	l cum	0.08	800.00	(1177)	64
	gravel					
	6x10 = 60 cudm					
		ou m	0.08	0.00	(2202)	0
	Carriage of Stone aggregate below 40 mm	cum	0.08	0.00	(2202)	U
	nominal size					
	Labour for screening and spreading grit	L.S.	26.91	2.12	(9999)	57.0492
	Sundries	L.S.	6.76	2.12	(9999)	14.3312
	TOTAL				,	135.38
	Add 1 % Water charges on "W"					1.35
	TOTAL					136.73
	Add GST on "X" (multiplying factor 0.1405)					19.21
	TOTAL					155.95
	Add 15% CPOH on "Y"					23.39
	TOTAL					179.34
	Add Cess @ 1% on					1.79
	Rate including labour cess					181.13
	Cost of 10.00 Sqm.					181.13
	Cost of 1.00 Sqm.					18.11
	Say		Say	Rs.18.10	per sqm	
	ou,				por oq	
			Say			
	Grading roof for water proofing treatment Cement concrete 1:2:4 (1 cement : 2 coars		·	e aggregate	20mm nom	inal size)
			·	e aggregate	20mm nom	inal size)
	Cement concrete 1:2:4 (1 cement : 2 coars Details of cost for one cum.	se sand : 4 (graded ston			
	Details of cost for one cum. Stone Aggregate (Single size): 20 mm		·	e aggregate 595.36	20mm nom (0295)	inal size) 398.89
	Cement concrete 1:2:4 (1 cement : 2 coars Details of cost for one cum. Stone Aggregate (Single size) : 20 mm nominal size	se sand : 4 g	graded ston	595.36	(0295)	398.89
	Details of cost for one cum. Stone Aggregate (Single size): 20 mm nominal size Stone Aggregate (Single size): 10 mm	se sand : 4 (graded ston			
	Cement concrete 1:2:4 (1 cement : 2 coars Details of cost for one cum. Stone Aggregate (Single size) : 20 mm nominal size	se sand : 4 g	graded ston	595.36	(0295)	398.89
	Details of cost for one cum. Stone Aggregate (Single size): 20 mm nominal size Stone Aggregate (Single size): 10 mm nominal size	cum	graded ston 0.67 0.22	595.36 657.91	(0295) (0297)	398.89 144.74
	Details of cost for one cum. Stone Aggregate (Single size): 20 mm nominal size Stone Aggregate (Single size): 10 mm nominal size Carriage of Stone aggregate below 40 mm	se sand : 4 g	graded ston	595.36	(0295)	398.89
	Details of cost for one cum. Stone Aggregate (Single size): 20 mm nominal size Stone Aggregate (Single size): 10 mm nominal size Carriage of Stone aggregate below 40 mm nominal size	cum	0.67 0.22 0.89	595.36 657.91 0.00	(0295) (0297) (2202)	398.89 144.74 0.00
	Details of cost for one cum. Stone Aggregate (Single size): 20 mm nominal size Stone Aggregate (Single size): 10 mm nominal size Carriage of Stone aggregate below 40 mm	cum	graded ston 0.67 0.22	595.36 657.91	(0295) (0297)	398.89 144.74
	Details of cost for one cum. Stone Aggregate (Single size): 20 mm nominal size Stone Aggregate (Single size): 10 mm nominal size Carriage of Stone aggregate below 40 mm nominal size Coarse sand (zone III)	cum cum cum cum	0.67 0.22 0.89 0.45	595.36 657.91 0.00	(0295) (0297) (2202) (0982)	398.89 144.74 0.00
	Details of cost for one cum. Stone Aggregate (Single size): 20 mm nominal size Stone Aggregate (Single size): 10 mm nominal size Carriage of Stone aggregate below 40 mm nominal size Coarse sand (zone III) Carriage of Coarse sand	cum cum cum cum cum	0.67 0.22 0.89 0.45 0.45	595.36 657.91 0.00 0	(0295) (0297) (2202) (0982) (2203)	398.89 144.74 0.00 0.00 0.00
	Details of cost for one cum. Stone Aggregate (Single size): 20 mm nominal size Stone Aggregate (Single size): 10 mm nominal size Carriage of Stone aggregate below 40 mm nominal size Carriage of Coarse sand (zone III) Carriage of Coarse sand Portland Cement (OPC-43 grade)	cum	0.67 0.22 0.89 0.45 0.45 0.32	595.36 657.91 0.00 0 0 4408.00	(0295) (0297) (2202) (0982) (2203) (0367)	398.89 144.74 0.00 0.00 0.00 1410.56
	Details of cost for one cum. Stone Aggregate (Single size): 20 mm nominal size Stone Aggregate (Single size): 10 mm nominal size Carriage of Stone aggregate below 40 mm nominal size Coarse sand (zone III) Carriage of Coarse sand Portland Cement (OPC-43 grade) Carriage of Cement	cum cum cum cum cum	0.67 0.22 0.89 0.45 0.45	595.36 657.91 0.00 0	(0295) (0297) (2202) (0982) (2203)	398.89 144.74 0.00 0.00 0.00 1410.56 46.63
	Details of cost for one cum. Stone Aggregate (Single size): 20 mm nominal size Stone Aggregate (Single size): 10 mm nominal size Carriage of Stone aggregate below 40 mm nominal size Carriage of Coarse sand (zone III) Carriage of Coarse sand Portland Cement (OPC-43 grade)	cum	0.67 0.22 0.89 0.45 0.45 0.32 0.32	595.36 657.91 0.00 0 0 4408.00 145.72	(0295) (0297) (2202) (0982) (2203) (0367) (2209)	398.89 144.74 0.00 0.00 0.00
	Details of cost for one cum. Stone Aggregate (Single size): 20 mm nominal size Stone Aggregate (Single size): 10 mm nominal size Carriage of Stone aggregate below 40 mm nominal size Coarse sand (zone III) Carriage of Coarse sand Portland Cement (OPC-43 grade) Carriage of Cement	cum	0.67 0.22 0.89 0.45 0.45 0.32	595.36 657.91 0.00 0 0 4408.00	(0295) (0297) (2202) (0982) (2203) (0367)	398.89 144.74 0.00 0.00 0.00 1410.56 46.63
	Details of cost for one cum. Stone Aggregate (Single size): 20 mm nominal size Stone Aggregate (Single size): 10 mm nominal size Carriage of Stone aggregate below 40 mm nominal size Coarse sand (zone III) Carriage of Coarse sand Portland Cement (OPC-43 grade) Carriage of Cement LABOUR Beldar	cum cum cum cum cum cum tonne tonne day	0.67 0.22 0.89 0.45 0.45 0.32 0.32	595.36 657.91 0.00 0 0 4408.00 145.72 306.00	(0295) (0297) (2202) (0982) (2203) (0367) (2209) (114)	398.89 144.74 0.00 0.00 0.00 1410.56 46.63 0.00 498.78
22.14	Details of cost for one cum. Stone Aggregate (Single size): 20 mm nominal size Stone Aggregate (Single size): 10 mm nominal size Carriage of Stone aggregate below 40 mm nominal size Coarse sand (zone III) Carriage of Coarse sand Portland Cement (OPC-43 grade) Carriage of Cement LABOUR Beldar Bhisti	cum cum cum cum cum cum tonne tonne day day	0.67 0.22 0.89 0.45 0.45 0.32 0.32 1.63 0.7	595.36 657.91 0.00 0 0 4408.00 145.72 306.00 332.00	(0295) (0297) (2202) (0982) (2203) (0367) (2209) (114) (101)	398.89 144.74 0.00 0.00 0.00 1410.56 46.63 0.00 498.78 232.40
	Details of cost for one cum. Stone Aggregate (Single size): 20 mm nominal size Stone Aggregate (Single size): 10 mm nominal size Carriage of Stone aggregate below 40 mm nominal size Coarse sand (zone III) Carriage of Coarse sand Portland Cement (OPC-43 grade) Carriage of Cement LABOUR Beldar	cum cum cum cum cum cum tonne tonne day	0.67 0.22 0.89 0.45 0.45 0.32 0.32	595.36 657.91 0.00 0 0 4408.00 145.72 306.00	(0295) (0297) (2202) (0982) (2203) (0367) (2209) (114)	398.89 144.74 0.00 0.00 0.00 1410.56 46.63 0.00 498.78

Item No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.
	Hire charges of Concrete Mixer 0.25 to 0.40	day	0.07	800.00	(0002)	56.00
	cum with hooper					
	Vibrator (Needle type 40 mm)	day	0.07	369.00	(0012)	25.83
	Sundries for laying in terrace	L.S.	45.76	2.12	(9999)	97.01
	TOTAL Add 1 % Water charges on "W"					2982.46 29.82
	TOTAL					3012.28
	Add GST on "X" (multiplying factor 0.1405)					423.23
	TOTAL					3435.51
	Add 15% CPOH on "Y"					515.33
	TOTAL					3950.84
	Add Cess @ 1% on					39.51
	Rate including labour cess					3990.34
	Cost of 1.00 Sqm.		•	D 000000		3990.34
	Say		Say	Rs.3990.30	per cum	
22.14.2	Cement mortar 1:3 (1 cement : 3 coarse sa	nd)				
	Details of cost for one cum.					
	MATERIAL O					
	Cement mortar 1:3	ou m	1.00	2077 40	(2442)	2077 4
	Rate as per Item No2112 of SH:Mortars LABOUR	cum	1.00	2877.40	(2112)	2877.4
	Mason (average)	day	1.00	369.00	(0155)	369
	Beldar	day	2.00	306.00	(114)	612
	Bhisti	day	0.50	332.00	(101)	166
	Coolie	day	5.00	318.00	(115)	1590
	Sundries	L.S.	11.70	2.12	(9999)	24.804
	TOTAL					5639.20
	Add 1 % Water charges on "W"					56.39
	TOTAL					5695.60
	Add GST on "X" (multiplying factor 0.1405) TOTAL					800.23
	Add 15% CPOH on "Y"					6495.83 974.37
	TOTAL					7470.20
	Add Cess @ 1% on					74.70
	Rate including labour cess					7544.90
	Cost of 1.00 cum					7544.90
	Say		Say	Rs.7544.90	per cum	
22.14.3	Cement mortar 1:4 (1 cement : 4 coarse san Details of cost for one cum.	nd)				
	MATERIAL					
	Cement mortar 1:4 (1 cement : 4 coarse sand)				
	Rate as per Item No.3.9of SH:Mortars	cum	1.00	2279.54	(2113)	2279.541
	LABOUR	حام	4.00	200.00	(0455)	200
	Mason (average) Beldar	day	1.00	322.00	(0155) (114)	322
	Beldar Bhisti	day day	2.00 0.50	0.00 0.00	(114) (101)	0
	Coolie	day	5.00	520.00	(101)	2600
	Sundries	L.S.	10.79	2.12	(9999)	22.8748
	TOTAL	2.0.			(3000)	5224.42
	Add 1 % Water charges on "W"					52.24
	TOTAL					5276.66
	Add GST on "X" (multiplying factor 0.1405)					741.37
	TOTAL					6018.03
	Add 15% CPOH on "Y"					902.70

Item No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.	
	TOTAL					6920.74	
	Add Cess @ 1% on					69.21	Ζ
	Rate including labour cess					6989.94	
	Cost of 1.00 cum					6989.94	

ay Say Rs.6989.90 per cum

22.18 Providing and fixing APP (Atactic Polypropylene Polymer) modified prefabricated five layer 2 mm thick water proofing membrance, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/ sqm by the same membrance manufacture of density at 25°C, 0.87 - 0.89 kg/ litre and viscocity 70 - 160 cps. Over the primer coat the layer of membrane shall be laid using Butane torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under: Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/5cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacture of membrane.

22.18.1 2 mm (for corrugated roof sheets).

Details of cost for 30 sqm.

MATERIAL:

A.P.P. modified 2 mm thick - 30 sqm Add 10% for waistage = 3 sqm

Total = 33 sqm

10tal = 33 Sqm					
A.P.P. modified 2 mm thick membrane	sqm	33	130.00	8203	4290.00
reinforced with glass fibre matt					
Bitumen primer for bitumen membrane	litre	12	85.00	8206	1020.00
Carriage of tar / bitumen	tonne	0.012	106.64	2211	1.28
Carriage of bitumen membrane	L.S.	7.8	2.12	9999	16.54
Fuel					
Commercial LPG in cylinder	kg	7	84.00	1241	588.00
Preparing roof surface, cutting grooves	L.S.	49.53	2.12	9999	105.00
LABOUR:					
Skilled torch operator for laying tack	day	2.16	388.00	159	838.08
Mistry	day	0.18	306.00	130	55.08
Beldar	day	3.24	306.00	114	991.44
Sundries, brushes, bitumen torch etc.	L.Š.	23.4	2.12	9999	49.61
TOTAL	_				7955.03
Add Water Charges @ 1%	, D				79.55
TOTAL	_				8034.58 (X)
Add GST 12% on "X" (multiplying factor 0.140	05)				1128.86
Total	,				9163.44 (Y)
Add for contractor's profit and over-heads @	15% on "Y"				1374.52
Cost for 30 sqm					10537.95
•					

Say Rs.354.80 per sqm

PXL 2 B OF 9/A"

Cost of 1 sqm

Add labour cess @ 1%

Rate including labour cess

351.27

354.78

3.51

No. Description Unit Qty Rate Code.	Cost Rs.	Rate	Rate	Qty	Unit	Description	ltem No	
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22.19 Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer, 3 mm thick water proofing membrane, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/ sqm by the same membrane manufactured of density at 25° C, 0.87 - 0.89 kg/ litre and viscocity 70 - 160 cps. Over the primer coat the layer of membrane shall be laid using butane torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under: Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/5 cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane.

22.19.1 3 mm thick.

Details of cost for 30 sqm.

MATERIAL:

A.P.P. modified 3mm thick =-30 sqm

Add 10% for wastage = 3 sqm.

Total = 33 sqm						
A.P.P. modified 3 mm thick membrane	sqm	33	190.00	8204	6270.00	
reinforced with glass fibre matt	Sqiii	33	190.00	0204	0270.00	
Bitumen primer for bitumen membrane	litre	12	85.00	8206	1020.00	
Carriage of tar / bitumen	tonne	0.012	106.64	2211	1.28	
•	L.S.	7.8	2.12	9999	16.54	
Carriage of bitumen membrane Fuel	L.S.	7.0	2.12	9999	10.34	
Commercial LPG in cylinder	kg	7	84.00	1241	588.00	
Preparing roof surface, cutting grooves	L.S.	49.53	2.12	9999	105.00	
LABOUR:						
Skilled torch operator for laying tack	day	2.16	388.00	159	838.08	
Mistry	day	0.18	306.00	130	55.08	
Beldar	day	3.24	306.00	114	991.44	
Sundries, brushes, bitumen torch etc.	L.S.	23.4	2.12	9999	49.61	
TOTAL					9935.03	
Add Water Charges @ 1%					99.35	
TOTAL					10034.38 (X)	
Add GST 12% on "X" (multiplying factor 0.1405	5)				1409.83	
Total					11444.21 (Y)	
Add for contractor's profit and over-heads @ 15	5% on "Y"				1716.63	
Cost for 30 sqm					13160.84	
Cost of 1 sqm					438.69	
Add labour cess @ 1%					4.39	

Say Rs.443.10 per sqm

443.08

22.20 Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/ sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscocity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under: Joint strength in longitudinal and transverse direction at 23°C as 650/450N/5 cm. Tear strength in longitudinal and transverse direction as 300/ 250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane.

Rate including labour cess

22.20.1 3 mm thick.

Details of cost for 30 sqm.

MATERIAL:

A.P.P. modified 3mm thick = 30 sqm

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P X 1 723 2 B @ 9/ A 3

Item No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.
<u> </u>	Add 10% for wastage = 3 sqm.		•			
	Total = 33 sqm					
	A.P.P. modified 3 mm thick membrane	sqm	33.00	210.00	(8205)	6930.00
	reinforced with polyester matt					
	Bitumen primer for bitumen membrane	litre	12.00	85.00	(8206)	1020.00
	Carriage of tar / bitumen	tonne	0.01	106.64	(2211)	1.28
	Carriage of bitumen membrane	L.S.	7.80	2.12	(9999)	16.54
	Fuel					
	Commercial LPG in cylinder	kg	7.00	84.00	(1241)	588.00
	Preparing roof surface, cutting grooves	L.S.	49.53	2.12	9999	105.00
	LABOUR:					
	Skilled torch operator for laying tack	day	2.16	388.00	159	838.08
	Mistry	day	0.18	306.00	130	55.08
	Beldar	day	3.24	306.00	114	991.44
	Sundries, brushes, bitumen torch etc.	L.S	23.40	2.12	9999	49.61
	TOTAL					10595.03
	Add Water Charges @ 1%					105.95
	TOTAL					10700.98 (X)
	Add GST 12% on "X" (multiplying factor 0.140)	5)				1503.49
	Total					12204.46 (Y)
	Add for contractor's profit and over-heads @ 1	5% on "Y"				1830.67
	Cost for 30 sqm					14035.13
	Cost of 1 sqm					467.84
	Add labour cess @ 1%					4.68
	Rate including labour cess					472.52
			Sav	Dc 472 50	norcam	

Say Rs.472.50 per sqm

22.21 Extra for covering top of membrane with Geotextile, 120 gsm non woven, 100% polyester of thickness 1 to 1.25 mm bonded to the membrane with intermittent touch by heating the membrane by Butane Torch as per manufactures recommendation.

Details of cost for 30 sqm.

MATERIAL:

Geotextile 120 gsm membrane =30 sqm

A LL FOX (
Add 5% for wastage = 1.5 sqm					
Total = 31.50 sqm					
Geotextile 120 grams per sqm membrane	sqm	31.5	45.00	(8207)	1417.50
Carriage of Geotextile	L.S.	7.8	2.12	(9999)	16.54
LABOUR:					
Skilled torch operator for laying tack	day	0.43	388.00	(0159)	166.84
or fitter $2.16 / 5 = 0.43$					
Mistry	day	0.04	306.00	(0130)	12.24
0.18 / 5 = 0.04					
Beldar	day	0.65	306.00	(0114)	198.90
3.24-5 / 0.65					
Sundries, torch, LPG etc.	L.S.	46.8	2.12	(9999)	99.22
TOTAL					1911.23
Add Water Charges @ 1%					19.11
TOTAL					1930.34 (X)
Add GST 12% on "X" (multiplying factor 0.140s	5)				271.21
Total					2201.56 (Y)
Add for contractor's profit and over-heads @ 1	5% on "Y"				330.23
Cost for 30 sqm					2531.79
Cost of 1 sqm					84.39
Add labour cess @ 1%					0.84

Rate including labour cess

By 3m 724 9/ A

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85.23

	Description	Unit	Oty	Rate	Rate	Cost
No.	· ·		Qty		Code.	Rs.
22.22	Providing and mixing integral crystalline			_		
	structures like basement raft, retaining wa	-			-	-
	/ subway and bridge deck etc at the time	-	•			-
	mix truck, using integral crystalline admix	_	•	-	_	ent
	content per cubic meter of concrete) or hig			-		
	specification in reinforced cement concret requirements as specified in ACI-212-3R-2					by more
	than 90%, compared with control concrete	-		-		-
	pressure. The crystalline admixture shall be	-			-	
	0.50mm. The work shall be carried out all o	-		-	-	
	Engineer-in-charge. The product performa	nce shall ca	rry guarant	ee for 10 ye	ars agains	t any
	leakage.					
	Details of cost for 1.00 Kg					
050	MATERIAL:	l	4.00	000.00	0050	000.00
352	Integral crystalline admixture LABOUR:	kg	1.00	230.00	0352	230.00
9999	For measuring, making and mixing etc	L.S.	5.80	2.12	9999	12.30
9999	Sundries	L.S.	1.15	2.12	9999	2.44
9999	Carriage of material and tools cost etc	L.S.	1.75	2.12	9999	3.71
	TOTAL					248.44
	Add 1 % Water charges					2.48
	TOTAL					250.93 (
	Add GST 12% on "X" (multiplying factor 0.140	05)				35.26
	Total Add for contractor's profit and over-heads @	150/ on "V"				286.18 (42.93
	Cost for 1.00 Kg	13% 011 1				329.11
	Add labour cess @ 1%					3.29
	Add laboul Cess & 170					0.20
	Rate including labour cess					332.40
	Rate including labour cess		•	Rs.332.40	per Kg	332.40
22.22A	Rate including labour cess Providing and applying fibre reinforced ela		quid water p	proofing me	nbrane wi	332.40 th
22.22A	Rate including labour cess Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Refle	ectivity Inde	quid water բ x (SRI) of 1	proofing mei 05 on top of	nbrane wi	332.40 th roof in
22.22A	Rate including labour cess Providing and applying fibre reinforced ela resilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat	ectivity Inde of self-prim	quid water μ x (SRI) of 1 ing of elast	oroofing me 05 on top of tomeric wate	mbrane with concrete items.	332.40 th roof in liquid
22.22A	Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and	ectivity Inde of self-prim two coats of	quid water p x (SRI) of 1 ing of elast f undiluted	oroofing me 05 on top of tomeric wate elastomeric	nbrane with concrete is erproofing waterproof	332.40 th roof in liquid ofing
22.22A	Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete appli	ectivity Inde: of self-prim two coats of ication/syste	quid water p x (SRI) of 1 ing of elast f undiluted em not less	oroofing men 05 on top of comeric wate elastomeric than 500 m	mbrane with concrete of the co	332.40 th roof in liquid ofing
22.22A	Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete applioperation shall be carried out after scrapp	ectivity Inde: of self-prim two coats of ication/syste ing and prop	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani	proofing men 05 on top of comeric wate elastomeric than 500 mi ng the surfa	mbrane wind concrete in erproofing waterprooficrons). The ce to remo	332.40 th roof in liquid offing ne ove loose
22.22A	Providing and applying fibre reinforced ela resilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete appl operation shall be carried out after scrapp particles with wire brushes, complete in all	ectivity Inde: of self-prim two coats of ication/syste ing and prop	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani	proofing men 05 on top of comeric wate elastomeric than 500 mi ng the surfa	mbrane wind concrete in erproofing waterprooficrons). The ce to remo	332.40 th roof in liquid offing ne ove loose
22.22A	Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete applioperation shall be carried out after scrapp	ectivity Inde: of self-prim two coats of ication/syste ing and prop	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani	proofing men 05 on top of comeric wate elastomeric than 500 mi ng the surfa	mbrane wind concrete in erproofing waterprooficrons). The ce to remo	332.40 th roof in liquid offing ne ove loose
22.22A 8511	Providing and applying fibre reinforced ela resilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete applioperation shall be carried out after scrapp particles with wire brushes, complete in al Details of cost for 10 Sqm MATERIAL Fibre reinforced elastomeric liquid water	ectivity Inde of self-prim two coats o ication/syste ing and prop I respect as	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani per the dire	oroofing mei 05 on top of comeric wate elastomeric than 500 mi ng the surfa ection of Eng	nbrane with concrete I erproofing waterproof icrons). Th ce to remo	332.40 th roof in liquid ofing ne ove loose Charge.
	Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete applioperation shall be carried out after scrapp particles with wire brushes, complete in al Details of cost for 10 Sqm MATERIAL Fibre reinforced elastomeric liquid water proofing membrane	ectivity Inde: of self-prim two coats of ication/syste ing and prop	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani	proofing men 05 on top of comeric wate elastomeric than 500 mi ng the surfa	mbrane wind concrete in erproofing waterprooficrons). The ce to remo	332.40 th roof in liquid offing ne ove loose
	Providing and applying fibre reinforced ela resilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete apply operation shall be carried out after scrapp particles with wire brushes, complete in all Details of cost for 10 Sqm MATERIAL Fibre reinforced elastomeric liquid water proofing membrane 10.76 litre + 0.538 (Add wastage 5%)	ectivity Inde of self-prim two coats o ication/syste ing and prop I respect as	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani per the dire	oroofing mei 05 on top of comeric wate elastomeric than 500 mi ng the surfa ection of Eng	nbrane with concrete I erproofing waterproof icrons). Th ce to remo	332.40 th roof in liquid ofing se ove loose Charge.
8511	Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete apply operation shall be carried out after scrapp particles with wire brushes, complete in all Details of cost for 10 Sqm MATERIAL Fibre reinforced elastomeric liquid water proofing membrane 10.76 litre + 0.538 (Add wastage 5%) = 11.30 litre	ectivity Inde of self-prim two coats of ication/syste ing and prop I respect as	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani per the dire	oroofing mei 05 on top of comeric wate elastomeric than 500 mi ng the surfa ection of Eng 230.00	mbrane with concrete in erproofing waterprooficrons). The ce to remondance to remondance.	332.40 th roof in liquid ofing ne ove loose charge.
	Providing and applying fibre reinforced ela resilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete appl operation shall be carried out after scrapp particles with wire brushes, complete in all Details of cost for 10 Sqm MATERIAL Fibre reinforced elastomeric liquid water proofing membrane 10.76 litre + 0.538 (Add wastage 5%) = 11.30 litre Carriage of materials	ectivity Inde of self-prim two coats o ication/syste ing and prop I respect as	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani per the dire	oroofing mei 05 on top of comeric wate elastomeric than 500 mi ng the surfa ection of Eng	nbrane with concrete I erproofing waterproof icrons). Th ce to remo	332.40 th roof in liquid ofing ne ove loose charge. 2599.00
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8511 9977 115	Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete apply operation shall be carried out after scrapp particles with wire brushes, complete in all Details of cost for 10 Sqm MATERIAL Fibre reinforced elastomeric liquid water proofing membrane 10.76 litre + 0.538 (Add wastage 5%) = 11.30 litre Carriage of materials LABOUR Coolie	of self-prim two coats of ication/syste ing and prop I respect as litre L.S.	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani per the dire 11.30 1.43 0.67	oroofing mei 05 on top of comeric wate elastomeric than 500 mi ng the surfa ection of Eng 230.00 2.12 318.00	mbrane with concrete serproofing waterproofice to remogineer-in-C	332.40 th roof in liquid ofing ne ove loose Charge. 2599.00 3.03 0.00 213.06
8511 9977 115 131	Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete apply operation shall be carried out after scrappy particles with wire brushes, complete in all Details of cost for 10 Sqm MATERIAL Fibre reinforced elastomeric liquid water proofing membrane 10.76 litre + 0.538 (Add wastage 5%) = 11.30 litre Carriage of materials LABOUR Coolie Painter Wire brush brushes, rollers etc. Sundries	of self-prim two coats of ication/syste ing and prop I respect as litre L.S. day day	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani per the dire 11.30 1.43 0.67 0.67	230.00 2.12 318.00 391.00	mbrane with concrete serproofing waterproofice to remogning about 15 and	332.40 th roof in liquid ofing ne ove loose Charge. 2599.00 3.03 0.00 213.06 261.97 14.33 17.09
8511 9977 115 131 9999	Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete apply operation shall be carried out after scrappy particles with wire brushes, complete in all Details of cost for 10 Sqm MATERIAL Fibre reinforced elastomeric liquid water proofing membrane 10.76 litre + 0.538 (Add wastage 5%) = 11.30 litre Carriage of materials LABOUR Coolie Painter Wire brush brushes, rollers etc. Sundries TOTAL	of self-prim two coats or ication/syste ing and prop I respect as litre L.S. day day L.S.	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani per the dire 11.30 1.43 0.67 0.67 0.67 6.76	230.00 2.12 318.00 391.00 2.12	mbrane with concrete in the proofing waterproofing waterproofice to remognineer-in-C	332.40 th roof in liquid ofing ne ove loose charge. 2599.00 3.03 0.00 213.06 261.97 14.33 17.09 3108.48
8511 9977 115 131 9999	Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete applioperation shall be carried out after scrapp particles with wire brushes, complete in all Details of cost for 10 Sqm MATERIAL Fibre reinforced elastomeric liquid water proofing membrane 10.76 litre + 0.538 (Add wastage 5%) = 11.30 litre Carriage of materials LABOUR Coolie Painter Wire brush brushes, rollers etc. Sundries TOTAL Add 1 % Water charges	of self-prim two coats or ication/syste ing and prop I respect as litre L.S. day day L.S.	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani per the dire 11.30 1.43 0.67 0.67 0.67 6.76	230.00 2.12 318.00 391.00 2.12	mbrane with concrete in the proofing waterproofing waterproofice to remognineer-in-C	332.40 th roof in liquid ofing ne ove loose charge. 2599.00 3.03 0.00 213.06 261.97 14.33 17.09 3108.48 31.08
8511 9977 115 131 9999	Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete applioperation shall be carried out after scrapp particles with wire brushes, complete in all Details of cost for 10 Sqm MATERIAL Fibre reinforced elastomeric liquid water proofing membrane 10.76 litre + 0.538 (Add wastage 5%) = 11.30 litre Carriage of materials LABOUR Coolie Painter Wire brush brushes, rollers etc. Sundries TOTAL Add 1 % Water charges TOTAL	of self-prim two coats or ication/syste ing and prop I respect as litre L.S. day day L.S.	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani per the dire 11.30 1.43 0.67 0.67 0.67 6.76	230.00 2.12 318.00 391.00 2.12	mbrane with concrete in the proofing waterproofing waterproofice to remognineer-in-C	332.40 th roof in liquid ofing ne ove loose charge. 2599.00 3.03 0.00 213.06 261.97 14.33 17.09 3108.48 31.08 3139.56
8511 9977 115 131 9999	Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete applioperation shall be carried out after scrappiparticles with wire brushes, complete in all Details of cost for 10 Sqm MATERIAL Fibre reinforced elastomeric liquid water proofing membrane 10.76 litre + 0.538 (Add wastage 5%) = 11.30 litre Carriage of materials LABOUR Coolie Painter Wire brush brushes, rollers etc. Sundries TOTAL Add 1 % Water charges TOTAL Add GST 12% on "X" (multiplying factor	of self-prim two coats or ication/syste ing and prop I respect as litre L.S. day day L.S.	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani per the dire 11.30 1.43 0.67 0.67 0.67 6.76	230.00 2.12 318.00 391.00 2.12	mbrane with concrete in the proofing waterproofing waterproofice to remognineer-in-C	332.40 th roof in liquid ofing ne ove loose charge. 2599.00 3.03 0.00 213.06 261.97 14.33 17.09 3108.48 31.08
8511 9977 115 131 9999	Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete apply operation shall be carried out after scrapp particles with wire brushes, complete in all Details of cost for 10 Sqm MATERIAL Fibre reinforced elastomeric liquid water proofing membrane 10.76 litre + 0.538 (Add wastage 5%) = 11.30 litre Carriage of materials LABOUR Coolie Painter Wire brush brushes, rollers etc. Sundries TOTAL Add 1 % Water charges TOTAL Add GST 12% on "X" (multiplying factor 0.1405)	of self-prim two coats or ication/syste ing and prop I respect as litre L.S. day day L.S.	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani per the dire 11.30 1.43 0.67 0.67 0.67 6.76	230.00 2.12 318.00 391.00 2.12	mbrane with concrete in the proofing waterproofing waterproofice to remognineer-in-C	332.40 th roof in liquid ofing ne ove loose charge. 2599.00 3.03 0.00 213.06 261.97 14.33 17.09 3108.48 31.08 3139.56 441.11
8511 9977 115 131 9999	Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete apply operation shall be carried out after scrapp particles with wire brushes, complete in all Details of cost for 10 Sqm MATERIAL Fibre reinforced elastomeric liquid water proofing membrane 10.76 litre + 0.538 (Add wastage 5%) = 11.30 litre Carriage of materials LABOUR Coolie Painter Wire brush brushes, rollers etc. Sundries TOTAL Add 1 % Water charges TOTAL Add GST 12% on "X" (multiplying factor 0.1405) Total	ectivity Index of self-prim two coats of ication/syste ing and prop I respect as litre L.S. day day L.S. L.S.	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani per the dire 11.30 1.43 0.67 0.67 0.67 6.76	230.00 2.12 318.00 391.00 2.12	mbrane with concrete in the proofing waterproofing waterproofice to remognineer-in-C	332.40 th roof in liquid ofing ne ove loose Charge. 2599.00 3.03 0.00 213.06 261.97 14.33 17.09 3108.48 31.08 3139.56 441.11 3580.67
8511 9977 115 131 9999	Providing and applying fibre reinforced elaresilient acrylic polymers having Sun Reflethree coats @10.76 litre/ 10 sqm. One coat (dilution with water in the ratio of 3:1) and liquid (dry film thickness of complete apply operation shall be carried out after scrapp particles with wire brushes, complete in all Details of cost for 10 Sqm MATERIAL Fibre reinforced elastomeric liquid water proofing membrane 10.76 litre + 0.538 (Add wastage 5%) = 11.30 litre Carriage of materials LABOUR Coolie Painter Wire brush brushes, rollers etc. Sundries TOTAL Add 1 % Water charges TOTAL Add GST 12% on "X" (multiplying factor 0.1405)	ectivity Index of self-prim two coats of ication/syste ing and prop I respect as litre L.S. day day L.S. L.S.	quid water p x (SRI) of 1 ing of elast f undiluted em not less perly cleani per the dire 11.30 1.43 0.67 0.67 0.67 6.76	230.00 2.12 318.00 391.00 2.12	mbrane with concrete in the proofing waterproofing waterproofice to remognineer-in-C	332.40 th roof in liquid ofing ne ove loose charge. 2599.00 3.03 0.00 213.06 261.97 14.33 17.09 3108.48 31.08 3139.56 441.11

Item No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.
	Cost of 1 sqm					411.78
	Add labour cess @ 1%					4.12
	Rate including labour cess					415.90

Say Rs.415.90 per sqm

22.23 Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer- in-charge. The product performance shall carry guarantee for 10 years against any leakage.

22.23.1 For vertical surface two coats @0.70 kg per sqm Details of cost for 1.00 sqm MATERIAL:

	Integral crystalline slurry					
351	$(2 \times .70 \text{kg} / \text{sq.mtr.} = 1.40 \text{kg})$	kg	1.40	195.00	0351	273.00
	LABOUR					0.00
9999	For application of waterproofing material	L.S.	11.55	2.12	9999	24.49
9999	Sundries	L.S.	1.15	2.12	9999	2.44
9999	Carriage of material and tools cost etc	L.S.	1.75	2.12	9999	3.71
	TOTAL					303.63
	Add 1% Water Charges					3.04
	TOTAL					306.67 (X)
	Add GST 12% on "X" (multiplying factor 0.1405	5)				43.09
	Total					349.76 (Y)
	Add for contractor's profit and over-heads @ 1	5% on "Y"				52.46
	Cost for 1.00 sqm					402.22
	Add labour cess @ 1%					4.02
	Rate including labour cess					406.24
	- -		Sav	Rs.406.20	per sam	

22.23.2 For horizontal surface one coat @1.10 kg per sqm.

	Details of cost for 1.00 sqm MATERIAL:					
351	Integral crystalline slurry	kilogram	1.10	195.00	0351	214.50
	(1 x 1.10kg / sq.mtr. = 1.10kg)					
	LABOUR :					
~~~~				0.40	0000	40.40

	LABOUR :					
9999	For application of waterproofing material	L.S.	5.75	2.12	9999	12.19
9999	Sundries	L.S.	1.15	2.12	9999	2.44
9999	Carriage of material and tools cost etc	L.S.	1.75	2.12	9999	3.71
	TOTAL					232.84
	Add 1% Water Charges					2.33
	TOTAL					235.17 (X)
	Add GST 12% on "X" (multiplying factor 0.140	05)				33.04
	Total					268.21 (Y)
	Add for contractor's profit and over-heads @ 1	15% on "Y"				40.23
	Cost for 1.00 sqm					308.44
	Add labour cess @ 1%					3.08
	Rate including labour cess					311.52

Say Rs.311.50 per sqm

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No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.	
22.23A	Providing & Applying polymer modified, flex	cible ceme	ntatious n	egative side			
	coating with elastic waterproofing polymers			-	-	_	
	kg /10 sqm. one coat of self priming of cementatious waterproofing polymer(dilution with water						
	in the ratio of 1:1) and two coats of cementatious waterproofing polymer (dilution with water in						
	the ratio of 3:1) after scrapping and properly	/ cleaning	the surfac	e to remove	pre-existin	g paint	
	film & loose particles till plaster is visible, co	mplete in	all respect	as per the c	lirection of	Engineer-	
	in-Charge.						
	Details of cost for 10 Sqm						
	MATERIAL						
8512	Cementitious water proofing coating with						
	elastic polymers	kg	15.07	225.00	8512	3390.75	
	14.35 kg + 0.72 (Add wastage 5%)					0.00	
0077	= 15.07 litre	1.0	4.50	2.42	0077	0.00	
9977	Carriage of materials  LABOUR	L.S.	1.56	2.12	9977	3.31 0.00	
115	Coolie	day	0.23	318.00	115	73.14	
131	Painter	day	0.46	391.00	131	179.86	
9999	Wire brush brushes, rollers etc.	L.S.	7.15	2.12	9999	15.16	
9999	Sundries	L.S.	8.06	2.12	9999	17.09	
	TOTAL					3679.30	
	Add 1 % Water charges					36.79	
	TOTAL					3716.10	
	Add GST 12% on "X" (multiplying factor					522.11	
	0.1405)						
	Total	0/				4238.21	
	Add for contractor's profit and over-heads @ 15	% on "Y"				635.73	
	Cost of 10 sqm Cost of 1 sqm					4873.94 487.39	
	Add labour cess @ 1%					4.87	
	Rate including labour cess					492.26	
	3		Say	Rs.492.30	per sqm		
22.24	Providing and applying integral crystalline (c	• ,					
	treatment to the RCC structures like baseme			_			
	plant alah warahawasa flasr parking atmest			iase siao eic	-	and buke	
	plant slab, warehouses floor, parking structu				the lean co	_	
	per sqm or higher as recommended by the m	nanufactur	er's specif	ication over		oncrete of	
	per sqm or higher as recommended by the mabove cited structures. The material shall me	nanufactur eet the req	er's specif uirements	ication over as specified	in ACI-212	oncrete of 3-3R-2010	
	per sqm or higher as recommended by the mabove cited structures. The material shall mei.e. by reducing permeability of concrete by reducing permeability of concrete by reducing permeability.	nanufactur eet the req more than	er's specif uirements 85%, com	ication over as specified pared contro	in ACI-212 I concrete	oncrete of -3R-2010 as per	
	per sqm or higher as recommended by the material shall medie. by reducing permeability of concrete by DIN 1048 and resistant to 16 bar hydrostatic	nanufactur eet the req more than pressure o	rer's specif uirements 85%, com on negative	ication over as specified pared contro s side. The c	in ACI-212 Il concrete rystalline d	oncrete of -3R-2010 as per Iry- shake	
	per sqm or higher as recommended by the mabove cited structures. The material shall mei.e. by reducing permeability of concrete by reducing permeability of concrete by reducing permeability.	nanufactur eet the req more than pressure o to a width	er's specif uirements 85%, com on negative of 0.50mn	ication over as specified pared contro e side. The c n. The work	in ACI-212 I concrete rystalline c shall be car	oncrete of 2-3R-2010 as per Iry- shake rried out	
	per sqm or higher as recommended by the mabove cited structures. The material shall me i.e. by reducing permeability of concrete by DIN 1048 and resistant to 16 bar hydrostatic shall be capable of self-healing of cracks up	nanufactur eet the req more than pressure o to a width ection of th	er's specif uirements 85%, com on negative of 0.50mn ne Enginee	ication over as specified pared contro e side. The c n. The work s r-in- charge.	in ACI-212 I concrete rystalline c shall be car	oncrete of 2-3R-2010 as per Iry- shake rried out	
	per sqm or higher as recommended by the mabove cited structures. The material shall medice, by reducing permeability of concrete by DIN 1048 and resistant to 16 bar hydrostatic shall be capable of self-healing of cracks up all complete as per specification and the direction	nanufactur eet the req more than pressure o to a width ection of th	er's specif uirements 85%, com on negative of 0.50mn ne Enginee	ication over as specified pared contro e side. The c n. The work s r-in- charge.	in ACI-212 I concrete rystalline c shall be car	oncrete of 2-3R-2010 as per Iry- shake rried out	
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354	per sqm or higher as recommended by the mabove cited structures. The material shall medice, by reducing permeability of concrete by DIN 1048 and resistant to 16 bar hydrostatic shall be capable of self-healing of cracks up all complete as per specification and the direction performance shall carry guarantee for 10 year Details of cost for 1.00 sqm MATERIAL:  Integral crystalline dry shake	nanufactur eet the req more than pressure o to a width ection of th	er's specif uirements 85%, com on negative of 0.50mn ne Enginee	ication over as specified pared contro e side. The c n. The work s r-in- charge.	in ACI-212 I concrete rystalline c shall be car	oncrete of 2-3R-2010 as per Iry- shake rried out	
	per sqm or higher as recommended by the mabove cited structures. The material shall media.e. by reducing permeability of concrete by a DIN 1048 and resistant to 16 bar hydrostatic shall be capable of self-healing of cracks up all complete as per specification and the direction performance shall carry guarantee for 10 year Details of cost for 1.00 sqm MATERIAL: Integral crystalline dry shake LABOUR	nanufacture et the require than pressure of to a width ection of the ars against kilogram	er's specifuirements 85%, compon negative of 0.50mm ne Enginee t any leaka	ication over as specified pared control e side. The c n. The work s r-in- charge: ge	in ACI-212 of concrete rystalline of shall be can The produce 354	encrete of 2-3R-2010 as per dry- shake rried out act	
354 9999	per sqm or higher as recommended by the mabove cited structures. The material shall me i.e. by reducing permeability of concrete by DIN 1048 and resistant to 16 bar hydrostatic shall be capable of self-healing of cracks up all complete as per specification and the dire performance shall carry guarantee for 10 year Details of cost for 1.00 sqm MATERIAL: Integral crystalline dry shake LABOUR For measuring and sprinkling of waterproofing	nanufacture et the requestion of the resure of to a width ection of the resure of the resure of the resure agains of the resure	er's specif uirements 85%, com on negative of 0.50mn ne Enginee t any leaka	ication over as specified pared contro e side. The c n. The work s r-in- charge. ge	in ACI-212 of concrete rystalline o shall be can The produ	oncrete of 2-3R-2010 as per Iry- shake rried out	
9999	per sqm or higher as recommended by the mabove cited structures. The material shall medie. by reducing permeability of concrete by modern DIN 1048 and resistant to 16 bar hydrostatic shall be capable of self-healing of cracks up all complete as per specification and the direct performance shall carry guarantee for 10 year Details of cost for 1.00 sqm MATERIAL:  Integral crystalline dry shake  LABOUR  For measuring and sprinkling of waterproofing material	nanufacture eet the requester than pressure of to a width ection of that are against kilogram  L.S.	er's specif uirements 85%, compon negative of 0.50mm ne Enginee t any leaka 0.60	ication over as specified pared control e side. The c n. The work s r-in- charge ge 280.00	in ACI-212 of concrete rystalline of shall be can The product 354 9999	oncrete of 2-3R-2010 as per Iry- shake rried out act 168.00 24.49	
9999 9999	per sqm or higher as recommended by the mabove cited structures. The material shall medie. by reducing permeability of concrete by modern DIN 1048 and resistant to 16 bar hydrostatic shall be capable of self-healing of cracks up all complete as per specification and the direct performance shall carry guarantee for 10 year Details of cost for 1.00 sqm MATERIAL: Integral crystalline dry shake LABOUR For measuring and sprinkling of waterproofing material Sundries	nanufacture eet the require than pressure of to a width ection of thars against kilogram  L.S.  L.S.	rer's specification with the control of the control	ication over as specified pared control e side. The c n. The work s r-in- charge ge 280.00 2.12	in ACI-212 of concrete rystalline of shall be can The product 354 9999	oncrete of 2-3R-2010 as per dry- shake rried out 168.00 24.49 2.44	
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9999 9999	per sqm or higher as recommended by the mabove cited structures. The material shall media.e. by reducing permeability of concrete by a DIN 1048 and resistant to 16 bar hydrostatic shall be capable of self-healing of cracks up all complete as per specification and the direction performance shall carry guarantee for 10 year Details of cost for 1.00 sqm MATERIAL: Integral crystalline dry shake LABOUR For measuring and sprinkling of waterproofing material Sundries Carriage of material and tools cost etc TOTAL Add 1% Water Charges TOTAL Add GST 12% on "X" (multiplying factor	nanufacture eet the require than pressure of to a width ection of thars against kilogram  L.S.  L.S.	rer's specification with the control of the control	ication over as specified pared control e side. The c n. The work s r-in- charge ge 280.00 2.12	in ACI-212 of concrete rystalline of shall be can The product 354 9999	2.44 3.71 198.63 1.99	
9999 9999	per sqm or higher as recommended by the mabove cited structures. The material shall media.e. by reducing permeability of concrete by a DIN 1048 and resistant to 16 bar hydrostatic shall be capable of self-healing of cracks up all complete as per specification and the direction performance shall carry guarantee for 10 year Details of cost for 1.00 sqm MATERIAL: Integral crystalline dry shake LABOUR For measuring and sprinkling of waterproofing material Sundries Carriage of material and tools cost etc TOTAL Add 1% Water Charges TOTAL	nanufacture eet the require than pressure of to a width ection of thars against kilogram  L.S.  L.S.	rer's specification with the control of the control	ication over as specified pared control e side. The c n. The work s r-in- charge ge 280.00 2.12	in ACI-212 of concrete rystalline of shall be can The product 354 9999	2.44 3.71 198.63 1.99 200.62	

Item No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.
	Add for contractor's profit and over-heads @ 1	5% on "Y"	-		•	34.32
	Cost for 1.00 sqm					263.13
	Add labour cess @ 1%					2.63
	Rate including labour cess					265.76
			Say	Rs.265.80	per sqm	
22.24 A Providing & Applying high quality acrylic modified resin based texture of Dholpur/ stone Pattern with anti algae and UV resistance properties to be applied as interme desired pattern @ 43.04 kgs/10 sqm to form film of 1- 1.5 mm thickness after scrap properly cleaning the surface to remove loose particles from the plaster surface, for coating with Premium Acrylic Smooth exterior paint with Silicone additives of requ two or more coats @ 1.43 litres/10 sqm, complete as the direction of Engineer -in-O						e finish in and ed by top shade by
	Details of cost for 10 Sqm MATERIAL					
	Acrylic modified resin based texture					
8513	43.04 kg + 2.15 (Add wastage 5%) = 45.19 kg	kg	45.19	42.00	8513	1897.98
	Quantity taken for cost using once = 10 sqm Top coat with premium acrylic exterior paint (two or more coats)					
	Rate as per Item No.14.67.1 of					
14.67.1	•	sqm	10.00	77.86	14.67.1	778.59 (A)
9977	Carriage of materials	L.S.	3.90	2.12	9977	8.27
	LABOUR					
115	Coolie	day	0.56	318.00	115	178.08
123	Mason (brick layer) 1st class	day	0.56	413.00	123	231.28
9999	Sundries and scaffolding	L.S.	40.00	2.12	9999	84.80
0000	TOTAL		.0.00		0000	3178.99
	Add 1 % Water charges on all except (A)					24.00
	TOTAL					3203.00 (X)
	Add GST 12% on "X" except A (multiplying					340.63
	factor 0.1405)					
	Total					3543.63 (Y)
	Add 15 % Contractor's profit and overheads					414.76
	•					

Say Rs.399.80 per sqm

3958.39

3958.39 395.84

3.96

399.80

- 22.25 Providing and applying crystalline mortar by mixing in the ratio of 4.5 : 1 (4.5 parts crystalline mortar : 1 part water) for the treatment of faulty construction joints, cracks, tie rod holes and spalled & honeycombed surface of RCC underground structures like basement, water tanks, bridge deck etc. to ensure water tightness. The crystallie mortar shall conform to the EN 1504-3 having compressive strength Class R4 (?45 MPa) and adhesive bond strength Class R3 (?1.5 MPa). The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.
- 22.25.1 For sealing cracks and faulty construction joints, routed out/making U-shape groove size 25x25mm and then primed the area with integral crystalline slurry @0.05kg/running meter and while the surface is tacky filled the groove upto surface with crystalline mortar @1.50kg/running meter. Once crystalline mortar is touch dry then finally applied two coats of integral crystalline slurry @0.05kg/running meter per coat.

Details of cost for 1.00 meter MATERIAL:

on all except (A)

Cost of 10 sqm

Cost of 1 sqm

Add labour cess @ 1%

Rate including labour cess

**TOTAL** 

353 Crystalline Mortar @1.50 kg per meter kilogram 1.50 190.00 353 285.00 BCD/SOR_11th Edition_2022

ltem No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.
	Integral crystalline slurry for priming and					
	finishing					
351	$(3 \times 0.05 \text{kg / meter}) = 0.15 \text{kg}$	kilogram	0.15	195.00	351	29.25
	LABOUR					
	For making crystalline mortar and repair					
9999	work etc	L.S.	14.45	1.73	9999	25.00
9999	Sundries	L.S.	1.15	1.73	9999	1.99
9999	Carriage of material and tools cost etc	L.S.	1.75	1.73	9999	3.03
	TOTAL					344.27
	Add 1% Water Charges					3.44
	TOTAL					347.71 (
	Add GST 12% on "X" (multiplying factor 0.140	05)				48.85
	Total	•				396.56 (
	Add for contractor's profit and over-heads @	15% on "Y"				59.48
	Cost for 1.00 metre					456.05
	Add labour cess @ 1%					4.56
	Rate including labour cess					460.61

Say Rs.460.60 per metre

22.25.2 For patching of tie rod holes, prepared tie rod hole surface and then primed the area with integral crystalline slurry @0.070kg/sqm and while the surface is tacky repair and then filled the tie rod holes with crystalline mortar@0.040kg per hole. The crystalline mortar should be tightly rodded into tie rod holes or packed tightly (For 25x25x25 mm tie rod hole, use 0.040kg to fill the hole)

Details of cost for 1 no. hole

MATERIAL:

	MATERIAL.					
353	Crystalline mortar@0.040 kg per hole	kilogram	0.04	190.00	353	7.60
	LABOUR					
9999	For making crystalline mortar and repair work	L.S.	2.90	1.73	9999	5.02
	etc					
9999	Sundries	L.S.	0.30	1.73	9999	0.52
9999	Carriage of material and tools cost etc	L.S.	0.25	1.73	9999	0.43
	TOTAL					13.57
	Add 1% Water Charges					0.14
	TOTAL					13.70 (X)
	Add GST 12% on "X" (multiplying factor					1.93
	0.1405)					
	Total					15.63 (Y)
	Add for contractor's profit and over-heads @ 19	5% on "Y"				2.34
	Cost for each hole					17.97
	Add labour cess @ 1%					0.18
	Rate including labour cess					18.15

Say Rs.18.20 Each

22.26 Providing and applying of swellable type water stop tape, 19mm x 25mm thick in linear meter (expansive nature) for construction joints treatment of RCC structure such as raft slab, retaining walls, water storage tank and at the junctions of raft slab with the retaining walls etc.. After cleaning the surface, one coat of required primer for swellable water stop tape shall be applied throughout the length of the joint @3.78 litre per 240 running meter. Over the primed surface swellable type water stop tape shall be placed. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.

Details of cost for 1.00 meter

MATERIAL:

355 Swellable type water stop tape (Crystalline sealing compound) metre 1.00 325.00 355 325.00 356 Swellable type water stop primer Litre 0.02 1300.00 356 20.80 (@3.78 litre per 240 running meter)

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Item No.	Description	Unit	Qty	Rate	Rate Code.	Cost Rs.
	LABOUR	<del>-</del>		-	-	-
9999	For application of primer and swellable					
	water stop	L.S.	8.65	1.73	9999	14.96
9999	Sundries	L.S.	1.15	1.73	9999	1.99
9999	Carriage of material and tools cost etc	L.S.	1.75	1.73	9999	3.03
	TOTAL					365.78
	Add 1% Water Charges					3.66
	TOTAL					369.44 ()
	Add GST 12% on "X" (multiplying factor					51.91
	0.1405)					
	Total					421.35 (`
	Add for contractor's profit and over-heads @	15% on "Y"				63.20
	Cost for 1.00 metre					484.55
	Add labour cess @ 1%					4.85
	Rate including labour cess					489.40

Say Rs.489.40 per metre

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