

Ecopolice (G+23) Building @ Upper Thane					Arch BUA	10310	sqm	Transportation emission coefficients							
								Road	0.7375	Sea			0.012		
Ref No	Materials list		Category	Materials Type	Material Weight (Kgs)	EC Coefficients (kgCO ₂ /kg)	EC Emission (kgCO ₂ e)	Transport medium	Lead Distance (km)	Transportation Emissions (kgCO ₂ e)	Total Emissions (kgCO ₂ e)	EC kgCO ₂ /Sqm	EC %	Emission Database Reference	
1	Aggregate											1.21	0.28%		
	a	Coarse	Str	General	101880	0.009	917	Road	40	30	946	0.09		IFC	
	b	Fine	Str	General	1254400	0.009	11290	Road	290	214	11503	1.12		IFC	
2	Aluminium											12.99	3.05%		
	a	Electrical Wire	MEP(E)	Virgin	2404	31	74511	Road	200	148	74659	7.24		IFC	
	b	Fire Extinguishers, P	MEP(E)	Virgin	276	35	9654	Road	1267	934	10588	1.03		IFC	
	c	Form work	Str	Virgin	8827	5.50	48550	Sea	9600	115	48665	4.72		SP	
	d	Extruded	Str	Virgin	0	33	0	Road	0	0	0	0.00		IFC	
	e	Rolled	Str	Virgin	0	32	0	Road	0	0	0	0.00		IFC	
3	Anti-Termite material		Civil	General	2870	11.2	32144	Road	161	119	32263	3.13	3.13	0.73%	SP
4	Asphalt		Civil	Recycled	0	0.24	0	Road	0	0	0	0.00	0.00	0.00%	IFC
5	Bitumen		Str	Recycled	270	0.51	138	Road	320	236	374	0.04	0.04	0.01%	SP - Hot
6	AAC Blocks											14.57	3.42%		
	a	100mm thick	Str	Green	74863	0.5	37431	Road	260	192	37623	3.65		IFC	
	b	150mm thick	Str	Green	166288	0.5	83144	Road	260	192	83336	8.08		IFC	
	c	200mm thick	Str	Green	58080	0.5	29040	Road	260	192	29232	2.84		IFC	
7	Concrete Blocks											0.00	0.00%		
	a	100mm thick	Civil	General	0	0.09	0	Road	0	0	0	0.00		SP	
	b	150mm thick	Civil	General	0	0.09	0	Road	0	0	0	0.00		SP	
	c	200mm thick	Civil	General	0	0.09	0	Road	0	0	0	0.00		SP	
8	Brass											0.73	0.17%		
	a	Diverter	MEP(P)	Virgin	563	4.32	2431	Road	345	254	2685	0.26		SP	
	b	Angle Valve	MEP(P)	Virgin	238	4.32	1026	Road	345	254	1281	0.12		SP	
	c	PRV, Bob Cock	MEP(P)	Virgin	547	4.32	2364	Road	1643	1212	3575	0.35		SP	
9	Bronze		Arch	Virgin	0	4.92	0	Road	0	0	0	0.00	0.00	0.00%	SP
10	Carpet		Arch	Recycled	0	7	0	Road	0	0	0	0.00	0.00	0.00%	IFC
11	Cast Iorn											0.76	0.18%		
	a	Split AC	MEP(M)	Virgin	2806	1.77	4967	Road	568	419	5386	0.52		SP	
	b	Butterfly Valves, Ma	MEP(P)	Virgin	863	1.77	1527	Road	1189	877	2404	0.23		SP	
12	Cement		Str	OPC	351600	0.912	320659	Road	550	406	321065	31.14	31.14	7.30%	Lodha
13	Cementitious WP Materia		Civil	Cementitiou	4178	0.546	2281	Road	40	30	2310	0.22	0.22	0.05%	SP
14	Ceramics - WC & Wash b		Arch	Sanitary war	8712	1.97	17163	Road	775	572	17734	1.72	1.72	0.40%	SP
15	Clay		Arch	General	0	0.0099	0	Road	0	0	0	0.00	0.00	0.00%	SP
16	Concrete			Concrete								153.83	36.08%		
	a	M10	Str		183912	0.0825	15173	Road	2	1	15174	1.47		Lodha	
	b	M20	Str		59808	0.11	6435	Road	2	1	6437	0.62		Lodha	
	c	M25	Str		334200	0.11	36762	Road	2	1	36763	3.57		Lodha	
	d	M30	Str		5863872	0.12	689591	Road	2	1	689593	66.89		Lodha	
	e	M35	Str		2589888	0.13	344196	Road	2	1	344198	33.38		Lodha	
	f	M40	Str		3484800	0.14	493796	Road	2	1	493798	47.90		Lodha	
17	Copper											4.42	1.04%		
	a	Split AC	MEP(M)	Virgin	3246	7.4	24023	Road	568	419	24442	2.37		IFC	
	b	Refrigerant Pipe	MEP(M)	Virgin	1240	7.4	9178	Road	188	139	9317	0.90		IFC	
	c	Electrical Cables, Ge	MEP(E)	Virgin	1537	7.4	11375	Road	647	477	11853	1.15		IFC	
18	CRCA											0.44	0.10%		
	a	Control Panel	MEP(E)	Virgin	309	2.63	813	Road	1020	752	1565	0.15		SP	
	b	Switch Box	MEP(E)	Virgin	340	2.63	894	Road	1020	752	1646	0.16		SP	
	c	ELV Distribution Box	MEP(E)	Virgin	221	2.63	581	Road	1020	752	1333	0.13		SP	
19	Double Wall Corrugated I		MEP(E)	Virgin	2700	2.59	6993	Road	1130	833	7826	0.76	0.76	0.18%	SP
20	Fly Ash		Str	Green	0	0.004	0	Road	0	0	0	0.00	0.00	0.00%	Lodha
21	Galvanized Iron											4.85	1.14%		
	a	Split AC	MEP(M)	Virgin	1399	3	4212	Road	568	419	4631	0.45		IFC	
	b	Pipe	MEP(P)	Virgin	13261	3	39914	Road	118	87	40001	3.88		ICE	
	c	Cable Tray	MEP(E)	Recycled	1115	0.72	803	Road	25	18	821	0.08		ICE	
	d	Strips , Z Angles	MEP(E)	Recycled	5775	0.72	4158	Road	584	431	4589	0.45		ICE	
22	GGBS		Str	Green	0	0.047	0	Road	0	0	0	0.00	0.00	0.00%	ICE
23	Glass		Façade	General	17582	1.2	21098	Road	411	303	21402	2.08	2.08	0.49%	IFC
24	Insulation		MEP(E)	Rockwool	0	1.14	0	Road	0	0	0	0.00	0.00	0.00%	SP
25	Iron		Arch	Recycled	0	1.77	0	Road	0	0	0	0.00	0.00	0.00%	SP
26	Lead		Arch	Virgin	0	1.22	0	Road	0	0	0	0.00	0.00	0.00%	SP
27	Lime		Arch	General	0	1.3	0	Road	0	0	0	0.00	0.00	0.00%	IFC
28	Linoleum		MEP(M)	Recycled	0	1.1	0	Road	0	0	0	0.00	0.00	0.00%	IFC
29	Mild Steel											0.43	0.10%		
	a	WC Chair Bracket	MEP(P)	Recycled	1716	0.47	807	Road	345	254	1061	0.10		ICE	
	b	ODU Stand	MEP(M)	Recycled	385	0.47	181	Road	10	7	188	0.02		ICE	
	c	Hose Reel Drum, Sai	MEP(M)	Recycled	141	0.47	66	Road	859	634	700	0.07		ICE	
	d	M.S.Railing	Façade	recycled	3000	0.83	2490	Road	50	37	2527	0.25		IFC	
30	Paint											24.19	5.67%		
	a	External	Façade	Acrylic	28994	6.63	192227	Road	159	117	192344	18.66		SP	
	b	Internal	Arch	Enamel	8577	6.63	56863	Road	200	148	57011	5.53		SP	

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31	Paper		Arch	General	0	2.78	0	Road	0	0	0	0.00	0.00	0.00%	SP
32	Pipes											4.43	1.04%		
	a	CPVC	MEP(P)	Virgin	2470	3.39	8373	Road	430	317	8690	0.84			SP
	b	CPVC	MEP(P)	Virgin	76	3.39	258	Road	1704	1257	1515	0.15			SP
	c	UPVC	MEP(P)	Virgin	10003	3.39	33911	Road	430	317	34228	3.32			SP
	d	UPVC (Multi Floor T	MEP(P)	Virgin	223	3.39	758	Road	665	490	1248	0.12			SP
33	Plaster		Arch	Gypsum	224208	0.099	22197	Road	1200	885	23082	2.24	2.24	0.53%	IFC
34	Plastics											0.62	0.15%		
	a	Split AC body	MEP(M)	General	2123	2.17	4607	Road	568	419	5026	0.49			SP
	b	Exhaust Fan body	MEP(M)	General	253	2.17	549	Road	592	437	986	0.10			SP
	c	LED, Smoke Detecto	MEP(M)	General	152	2.17	331	Sea	3130	38	368	0.04			SP
35	Polyurethane									0		1.77	0.41%		
	a	PU Foam -Gap bet s	MEP(M)	Virgin	1027	12	12323	Sea	4883	59	12381	1.20			ICE
	b	Waterproofing mat	Civil	Polyurethan	1061	5.47	5801	Road	40	30	5830	0.57			IFC
36	PV Modules		MEP(M)	Polycrystallir	0	242	0	Road	0	0	0	0.00	0.00	0.00%	ICE
37	PVC											0.44	0.10%		
	a	Electrical Cable	MEP(E)	Virgin	861	2.17	1868	Road	200	148	2015	0.20			SP
	b	Flush Tanks	MEP(P)	Virgin	356	2.17	773	Road	345	254	1028	0.10			SP
	c	Conduits	MEP(E)	Virgin	195	2.17	422	Road	180	133	555	0.05			SP
	d	Fire Hose Pipe, PVC	MEP(M)	Virgin	312	2.17	676	Road	403	297	973	0.09			SP
38	Red Bricks		Civil	Recycled	0	0.32	0	Road	0	0	0	0.00	0.00	0.00%	IFC
39	Rubber (Nitrile)		MEP(M)	General	0	4.69	0	Road	0	0	0	0.00	0.00	0.00%	SP
40	Sand		Str	General	0	0.009	0	Road	0	0	0	0.00	0.00	0.00%	IFC
41	Sealants and adhesives		MEP(M)	General	0	1.13	0	Road	0	0	0	0.00	0.00	0.00%	SP Bitumen s
42	Soil(Plinth/back filling)		Str	General	3807000	0.024	91368	Road	1	1	91369	8.86	8.86	2.08%	ICE
43	Solar Panels/ Solar Heatin		MEP(M)	Polycrystallir	0	208	0	Road	0	0	0	0.00	0.00	0.00%	ICE
44	Stainless Steel											1.03	0.24%		
	a	Split AC	MEP(M)	virgin	1870	2.8	5235	Road	568	419	5654	0.55			IFC
	b	Drain Board	MEP(P)	virgin	522	2.8	1462	Road	345	254	1716	0.17			IFC
	c	SS Grating, Double L	MEP(P)	virgin	1014	2.8	2840	Road	520	384	3224	0.31			IFC
45	Reinforcement											86.14	20.20%		
	a	Virgin	Str	Virgin	0	2.5	0	Road	0	0	0	0.00			SP
	b	Recycled	Str	Recycled	493300	1.8	887940	Road	180	133	888073	86.14			SP
46	Stone											4.40	1.03%		
	a	Granite	Arch	General	46918	0.7	32843	Road	1100	811	33654	3.26			ICE
	b	Marble	Arch	General	21298	0.13	2769	Road	720	531	3300	0.32			ICE
	c	Soling	Str	General	106628	0.079	8424	Road	25	18	8442	0.82			ICE
47	Tiles									0		20.05	4.70%		
	a	Ceramic (Toilet & Ki	Arch	General	22429	0.67	15027	Road	720	531	15558	1.51			IFC
	b	Vetrified	Arch	General	280404	0.68	190675	Road	720	531	191206	18.55			IFC
48	Timber											8.69	2.04%		
	a	MDF	Arch	Recycled	0	4.47	0	Road	0	0	0	0.00			SP
	b	Door Frames	Arch	General	15808	2.56	40518	Road	800	590	41108	3.99			SP
	c	Doors	Arch	General	30304	1.58	47848	Road	800	590	48438	4.70			SP
49	Tin		Arch	Virgin	0	20.6	0	Road	0	0	0	0.00	0.00	0.00%	SP
50	Titanium		Arch	Virgin	0	29.2	0	Road	0	0	0	0.00	0.00	0.00%	SP
51	Vinyl flooring		Arch	Virgin	0	2.1	0	Road	0	0	0	0.00	0.00	0.00%	IFC
52	Windows											30.15	7.07%		
	a	Aluminium framed	Façade	Virgin	12418	25.00	310450	Road	532	392	310842	30.15			SP
	b	Aluminium-clad Tim	Façade	Virgin	0	14.00	0	Road	0	0	0	0.00			SP
	c	Timber Framed	Façade	General	0	2.40	0	Road	0	0	0	0.00			IFC
53	Zinc		Arch	Virgin	0	4.72	0	Road	0	0	0	0.00	0.00	0.00%	SP
Total							4372112			23248	4395359	426	426		

