

Engineering Information

Weights of Materials

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WEIGHTS OF MATERIALS		lb/cft	kg/cu.m.
Aluvial ground-undistributed		100	1600
Asbestos felt		9	150
Asphalt flooring		137	2200
Ballast stone		100-200	1600-1970
Bamboo		23	370
Bitumen		65	1040
Brass		534	8550
Bricks	Common Burnt Clay	100-120	1600-1920
	Sand Cement	115	1840
	Sand Lime	130	2080
Brick ballast		75	1200
Brick dust (Surki)		63	1010
Brick Masonry		120	1920
Cement	Ordinary and Aluminous	90	1440
	Rapid Hardening	80	1280
Cement concrete-Plain : Aerated		116	1860
Brick Aggregate		115	1840
Stone Ballast		140	2240
Cement Concrete-reinforced		148	2370
	with 1% steel	150	2420
	with 2% steel	160	2580
	with 3% steel	100-120	1600-1920
Chalk		90	1440
Clay	Dry compact	110	1760
	Damp, compact	130	2080
	Wet, compact	55-70	880-1120
Coal		120	1920
concrete with brick aggregate and lime mortar		170	2720
Cuddaph Slabs			
Earth	Dry loose	80	1280
	Dry compact	97	1550
	Moist loose	90-100	1440-1600
	Dry compact	100-115	1760-1840
Glass	Crown	157	2510
	Common	183	2930
	Flint	191	3060
	Plass glass	172	2750
Gravel		100-125	1600-2000
Gunmetal	548	8780	
Iron	Pig	450	7200
	Grey Cast	445	7130
	White Cast	480	7700
	Wrought	51	820
Kerosene		60	960
Lime freshly burnt		80-90	1280-1440
Lime stone crushed		40	640
Lime slaked		130	2080
Mortar	Cement	130	2080
	Lime	110	1760

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Oils	Castor	60	960
	Diesel	60	960
	Linseed	58	930
	Turpentine	54	865
Paper	Close packed		880
	Loose records	40-55	640-720
Petrol		43	690
Plastics		69-100	1100-1600
Plaster of Paris		50	800
Rubber		60	960
Sand	Dry-Clean	100	1600
	River	110-125	1760-2000
	Wet	110-120	1760-1920
Silt Wet		490	7830
Steel	Cast	489	7850
	Wrought-mild	178-185	2850-2960
Stones	Basalt	150-168	2400-2650
	Gneiss	165-175	2460-2800
	Kankar	85-92	1360-1470
	Laterite	130-150	2080-2400
	Limestone	150-165	2400-2640
	Marble	164	2620
	Quartz	165	2640
	Sand-stone	140-150	2240-2400
	Slate	178	2800
Stone Masonry	Dry Rubble	130	2080
	Granite-Ashlar	165	2640
	Granite rubble	150	2400
	Limestone-Ashlar	160	2560
	Marble-dressed	169	2700
	Standstone-dressed	140	2240
Tar		63	1010
Tarra-cota (solid)		117	1870
Timber	Chir wood	27	430
	Deal wood	28	440
	Hard wood	40-60	640-960
	Light wood	25-30	400-480
Medium wood		30-40	480-640
Sal wood		62	990
Teak wood		45.5	730
Tin		60	960
Varnish		62-425	1000
Water (Pure 39°F)			
Roofing Material		Lb/sft.	kg/sq.m
Aluminium sheet per mm. thickness		0.57	2.8
Asbestos sheet 1/4" thick:		3.30	16.0
	Corrugated	230.00	11.0
	Flat		