

**Tab.2 - Physical properties of materials**

Type	Average specific weight    qs		Angle of repose	Abrasive - ness	Corrosive - ness
	t/m <sup>3</sup>	lbs. / Cu.Ft			
Alumina	0,80-1,04	50-65	22°	C	A
Aluminium chips	0,11-0,24	7-15	-	B	A
Aluminium oxide	1,12-1,92	70-120	-	C	A
Aluminium sulphate (granular)	0,864	54	32°	-	-
Ammonium nitrate	0,72	45	-	B	C
Ammonium sulphate	0,72-0,93	45-58	32°	B	C
Asbestos ore or rock	1,296	81	-	C	A
Ashes, coal, dry, up to 80 mm	0,56-0,64	35-40	40°	B	A
Ashes, coal, wet, up to 80 mm	0,72-0,80	45-50	50°	B	P
Asphalt, binder for paving	1,28-136	80-85	-	A	B
Asphalt, crushed up to 13 mm	0,72	45	-	A	A
Bakelite, fine	0,48-0,64	30-40	-	A	A
Barite	2,88	180	-	A	A
Barium carbonate	1,152	72	-	A	A
Bauxite, mine run	1,28-1,44	80-90	31°	C	A
Bauxite, ground, dried	1,09	68	35°	C	A
Bentonite, up to 100 mesh	0,80-0,96	50-60	-	B	A
Borax, lump	0,96-1,04	60-65	-	B	A
Brick, hard	2	125	-	C	A

Calcium carbide	1,12-1,28	70-80	-	B	B
Carbon black pellets	0,32-0,40	20-25	-	A	A
Carbon black powder	0,06-0,11	4-7	-	A	A
Carborundum, up to 80 mm	1,60	100	-	C	A
Cast iron chips	2,08-3,20	130-200	-	B	A
Cement, rock (see limestone)	1,60-1,76	100-110	-	B	A
Cement, Portland,aerated	0,96-1,20	60-75	39°	B	A
Charcoal	0,29-0,40	18-25	35°	A	A
Chrome ore (cromite)	2-2,24	125-140	-	C	A
Clay, dry, fine	1,60-1,92	100-120	35°	C	A
Clay, dry, lumpy	0,96-1,20	60-75	35°	C	A
Clinker	1,20-1,52	75-95	30-40°	C	A
Coal, anthracite	0,96	60	27°	B	A
Coal, bituminous, 50 mesh	0,80-0,86	50-54	45°	A	B
Coal, bituminous, run of mine	0,72-0,88	45-55	38°	A	B
Coal, lignite	0,64-0,72	40-45	38°	A	B
Coke breeze, 6 mm	0,40-0,5	25-35	30-45°	C	B
Coke, loose	0,37-0,56	23-35	-	C	B
Coke petroleum calcined	0,56-0,72	35-45	-	A	A
Concrete, in place, stone	2,08-2,40	130-150	-	C	A
Concrete, cinder	1,44-1,76	90-110	-	C	A
Copper, ore	1,92-2,40	120-150	-	-	-
Copper sulphate	1,20-1,36	75-85	31°	A	-
Cork	0,19-0,24	12-15	-	-	-
Cryolite	1,76	110	-	A	A
Cryolite, dust	1,20-1,44	75-90	-	A	A

Dicalcium phosphate	0,688	43	-	-	-
Disodium phosphate	0,40-0,50	25-31	-	-	-
Dolomite, lumpy	1,44-1,60	90-100	-	B	A

Earth, wet, containing clay	1,60-1,76	100-110	45°	B	A
Feldspar, 13 mm screenings	1,12-1,36	70-85	38°	C	A
Feldspar, 40 mm to 80 mm lumps	1,44-1,76	90-110	34°	C	A
Ferrous sulphate	0,80-1,20	50-75	-	B	-
Foundry refuse	1,12-1,60	70-100	-	C	A
Gypsum, 13 mm to 80 mm lumps	1,12-1,28	70-80	30°	A	A
Gypsum, dust	0,96-1,12	60-70	42°	A	A
Graphite, flake	0,64	40	-	A	A
Granite, 13 mm screening	1,28-1,44	80-90	-	C	A
Granite, 40 mm to 50 mm lumps	1,36-1,44	85-90	-	C	A
Gravel	1,44-1,60	90-100	40°	B	A
Gres	1,36-1,44	85-90	-	A	A
Guano, dry	1,12	70	-	B	-
Iron ore	1,60-3,20	100-200	35°	C	A
Iron ore, crushed	2,16-2,40	135-150	-	C	A
Kaolin clay, up to 80 mm	1,008	63	35°	A	A
Kaolin talc, 100 mesh	0,67-0,90	42-56	45°	A	A
Lead ores	3,20-4,32	200-270	30°	B	B
Lead oxides	0,96-2,04	60-150	-	A	-
Lime ground, up to 3 mm	0,96	60	43°	A	A
Lime hydrated, up to 3 mm	0,64	40	40°	A	A
Lime hydrated, pulverized	0,51-0,64	32-40	42°	A	A
Limestone, crushed	1,36-1,44	85-90	35°	B	A
Limestone, dust	1,28-1,36	80-85	-	B	A
Magnesite (fines)	1,04-1,20	65-75	35°	B	A
Magnesium chloride	0,528	33	-	B	-
Magnesium sulphates	1,12	70	--	-	-
Manganese ore	2,00-2,24	125-140	39°	B	A
Manganese sulphate	1,12	70	-	C	A
Marble, crushed, up to 13 mm	1,44-1,52	90-95	-	B	A
Nickel ore	2,40	150	-	C	B

Phosphate, acid, fertilizer	0,96	60	26°	B	B
Phosphate, florida	1,488	93	27°	B	A
Phosphate rock, pulverized	0,96	60	40°	B	A
Phosphate, super ground	0,816	51	45°	B	B
Pyrite-iron, 50 to 80 mm lumps	2,16-2,32	135-145	-	B	B
Pyrite, pellets	1,92-2,08	120-130	-	B	B
Polystyrene beads	0,64	40	-	-	-
Potash salts, sylvite, etc.	1,28	80	-	A	B
Potassium chloride, pellets	1,92-2,08	120-130	-	B	B
Potassium nitrate (saltpeter)	1,216	76	-	B	B
Potassium sulphate	0,67-0,77	42-48	-	B	-

Quartz 40 mm to 80 mm lumps	1,36-1,52	85-95	-	C	A
Quartz, dust	1,12-1,28	70-80	-	C	A
Quartz, 13 mm screening	1,28-1,44	80-90	-	C	A

Rubber, pelletized	0,80-0,88	50-55	35°	A	A
Rubber, reclaim	0,40-0,48	25-30	32°	A	A

Salt, common dry, coarse	0,64-0,88	40-55	-	B	B
Salt, common dry, fine	1,12-1,28	70-80	25°	B	B
Sand, damp	1,76-2,08	110-130	45°	C	A
Sand, dry	1,44-1,76	90-110	35°	C	A
Sand, foundry, shakeout	1,44-1,60	90-100	39°	C	A
Slag, blast furnace, crushed	1,28-1,44	80-90	25°	C	A
Slate, 40 mm to 80 mm lumps	1,36-1,52	85-95	-	B	A
Slate, dust	1,12-1,28	70-80	35°	B	A
Soap powder	0,32-0,40	20-25	-	A	A
Soapstone, talc, fine	0,64-0,80	40-50	-	A	A
Soda heavy asmes	0,88-1,04	55-65	32°	B	C
Sodium bicarbonate	0,656	41	42°	A	A
Sodium nitrate	1,12-1,28	70-80	24°	A	-
Steel shavings	1,60-2,40	100-150	-	C	A
Sugar beet, pulp (dry)	0,19-0,24	12-15	-	-	-
Sugar beet, pulp (wet)	0,40-0,72	25-45	-	A	B
Sugar, cane, knifed	0,24-0,29	15-18	50°	B	A
Sugar, powdered	0,80-0,96	50-60	-	A	B
Sugar, raw, cane	0,88-1,04	55-65	30°	B	B
Sugar, wet, beet	0,88-1,04	55-65	30°	B	B
Sulphur, crushed under 13 mm	0,80-0,96	50-60	-	A	C
Sulphur, up to 80 mm	1,28-1,36	80-85	-	A	C

Talc, powdered	0,80-0,96	50-60	-	A	A
Talc, 40 mm to 80 mm lumps	1,36-1,52	85-95	-	A	A
Titanium dioxide	0,40	25	-	B	A

Wheat	0,64-0,67	40-42	25°	A	A
Wood chips	0,16-0,48	10-30	-	A	A

Zinc concentrates	1,20-1,28	75-80	-	B	A
Zinc ore, roasted	1,60	100	38°	-	-
Zinc oxide, heavy	0,48-0,56	30-35	-	A	A