



TIPPING ANGLES

ANGLES AT WHICH VARIOUS MATERIALS WILL SLIDE OUT OF A TIPPED BODY

ASHES, DRY	33°	COAL, HARD	24°	ORE, FRESH MINED	37°
ASHES, MOIST	36°	COAL, SOFT	30°	RUBBLE	45°
ASHES, WET	30°	COKE	23°	SAND, DRY	35°
ASPHALT	45°	CONCRETE	30°	SAND, MOIST	40°
CINDERS, DRY	33°	EARTH, LOOSE	28°	SAND & CRUSHED STONE	27°
CINDERS, MOIST	34°	EARTH, COMPACTED	50°	STONE	30°
CINDERS, WET	31°	GARBAGE	30°	STONE, BROKEN	27°
CINDERS & CLAY	30°	GRAVEL	40°	STONE, CRUSHED	30°
CLAY	45°	ORE, DRY	30°		

COMMODITY WEIGHTS OF SOME COMMON ITEMS

The following list of approximate weights of various materials has been compiled from the best sources available and is intended as a reference guide only. As can be seen there is a wide variation of weights in a number of instances, this variation indicates the advisability of checking actual weights in order to obtain accurate calculations.

COMMODITY	KG. PER M ³	COMMODITY	KG. PER M ³
ASHES	641	MARBLE-SOLID	2645
ASPHALT	1603	MARBLE-CRUSHED	1539
BARLEY	609	IRON-ORDINARY	4507
CINDERS	641	IRON-BROWN	3800
CLAY-DRY	1009	IRON-HEMATITE	5214
CLAY-WET	1764	IRON-MAGNETITE	4988
COAL-BLACK	903	LEAD	7274
COAL-BROWN	757	MANGANESE	4151
COKE	594	TIN	6704
CONCRETE-DRY MIX	1247	ZINC	4650
CONCRETE-WET MIX	2375	MUD-DRY	1283 - 1764
EARTH-DRY	1152 - 1283	MUD-WET	1764 - 2084
EARTH-WET	1443 - 1603	ROCK & STONE-CRUSHED	1363 - 1669
GARBAGE-DRY	528 - 659	SALT-FINE	802
GARBAGE-WET	656 - 834	SAND-DRY & LOOSE	1443 - 1698
GRAVEL & SAND-DRY & LOOSE	1463 - 1729	SAND-DRY & COMPACT	1876
GRAVEL & SAND-DRY & PACKED	1764	SAND-MOIST & LOOSE	1924
GRAVEL & SAND-WET	1924 UPWARD	SANDSTONE-SOLID	2494
GYPSUM	600 - MOIST	SANDSTONE-CRUSHED	1366
LIME	861	STONE-CRUSHED	1603
LIMESTONE-SOLID	2553	SUPERPHOSPHATE	1026
LIMESTONE-CRUSHED	1603	GRANULAR-BULK	
		WHEAT	769