

Table 3.3.1

Coefficients of friction of rocks and minerals

*Notation:* Authors. B, Bowden and Tabor (1950, 1964); By, Byerlee (1967b); H, Hoskins *et al.* (1968); HS, Handin and Stearns (1964); HD, Horn and Deere (1962); J, Jaeger (1959); P, Penman (1953); R, Rae (1963); W, Wiebols *et al.* (1968). l, large surface; s, small surface; t, triaxial test; r, rough surface; g, coarsely ground surface; p, finely ground surface; n, natural shear surface; w, wet surface; c, clean surface.

Minerals	$\mu$	Minerals	$\mu$	$\mu$ (wet)
Na Cl, [B; s]	0.7	Quartz, [HD]	0.11	0.42
Pb S, [B; s]	0.6	Quartz, [P]	0.19	0.65
S, [B; s]	0.5	Feldspar, [HD]	0.11	0.46
Al <sub>2</sub> O <sub>3</sub> , [B; s]	0.4	Calcite, [HD]	0.14	0.68
Ice, [B; s]	0.5	Muscovite, [H, D]	0.43	0.23
Glass, [B; s]	0.7	Biotite, [HD]	0.31	0.13
Diamond, [B; s]	0.1	Serpentine, [HD]	0.62	0.29
Diamond, [B; s; c]	0.3	Talc, [HD]	0.36	0.16
Rocks		Rocks		
Sandstone, [R]	0.68	Dolomite, [HS; t; g]	0.4	
Sandstone, [J; t; n]	0.52	Trachyte, [H; l; p]	0.63	
Sandstone, [H; l; r]	0.51	Trachyte, [H; l; g]	0.68	
Sandstone, [H; l; r; w]	0.61	Trachyte, [H; l; g; w]	0.56	
Granite, [By; t; n; g]	0.60	Marble, [H; l; p]	0.75	
Granite, [By; t; n; g; w]	0.60	Marble, [J; t; n]	0.62	
Granite, [H; l; g]	0.64	Porphyry, [J; t; n]	0.86	
Quartzite, [W; t; g]	0.48	Gneiss, [J; t; n]	0.71	
Quartzite, [W; t; n]	0.67	Gneiss, [J; t; n; w]	0.61	
Dolerite, [W; t; g]	0.64	Gabbro, [H; l; p]	0.18	
Dolerite, [W; t; n]	0.95	Gabbro, [H; l; g]	0.66	