

Unified Soil Classification (USC) System (from ASTM D 2487)

Major Divisions		Group Symbol	Typical Names
Course-Grained Soils More than 50% retained on the No. 200 sieve	Gravels 50% or more of course fraction retained on the No. 4 sieve	Clean Gravels	GW Well-graded gravels and gravel-sand mixtures, little or no fines
		Gravels with Fines	GP Poorly graded gravels and gravel-sand mixtures, little or no fines
			GM Silty gravels, gravel-sand-silt mixtures
		GC Clayey gravels, gravel-sand-clay mixtures	
	Sands 50% or more of course fraction passes the No. 4 sieve	Clean Sands	SW Well-graded sands and gravelly sands, little or no fines
		Sands with Fines	SP Poorly graded sands and gravelly sands, little or no fines
			SM Silty sands, sand-silt mixtures
			SC Clayey sands, sand-clay mixtures
Fine-Grained Soils More than 50% passes the No. 200 sieve	Silts and Clays Liquid Limit 50% or less	ML Inorganic silts, very fine sands, rock four, silty or clayey fine sands	
		CL Inorganic clays of low to medium plasticity, gravelly/sandy/silty/lean clays	
		OL Organic silts and organic silty clays of low plasticity	
	Silts and Clays Liquid Limit greater than 50%	MH Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts	
		CH Inorganic clays or high plasticity, fat clays	
		OH Organic clays of medium to high plasticity	
Highly Organic Soils		PT Peat, muck, and other highly organic soils	

Prefix: G = Gravel, S = Sand, M = Silt, C = Clay, O = Organic

Suffix: W = Well Graded, P = Poorly Graded, M = Silty, L = Clay, LL < 50%, H = Clay, LL > 50%

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