

Soil Hand Texturing Key

Place approx. 25 g (1-2 Tbsp) of soil in your hand. If needed, sieve the soil to 2mm or remove any obvious gravels.

BALL TEST: Moisten the soil and work it to break down all aggregates. Squeeze the soil and try to make a ball.

Add dry soil.

Does the soil remain in a ball when squeezed?

no

Is the soil too dry?

yes

no

Is the soil too wet?

yes

no

SAND

WIRE TEST: Roll soil into a thin wire with uniform thickness using your palms. Hold the the wire vertically by one end and gently dangle it. If it breaks, pick up the piece that broke off and dangle it again. Repeat until the wire piece that you are holding no longer breaks, then measure the length of this piece.

RIBBON TEST: Roll soil into a thick wire using your palms. Place the wire between thumb and forefinger then gently push the soil upwards with the thumb to extrude a ribbon with uniform thickness over the forefinger until it breaks from its own weight. Measure the length of the ribbon that broke off.

Does the soil form a wire or ribbon?

no

LOAMY SAND

yes

Wire or ribbon length is less than 2.5 cm

no

Wire or ribbon length is 2.5 - 5 cm

no

Wire or ribbon length is 5 cm or longer

yes

FEEL TEST: Wet a small amount of soil and rub between thumb and forefinger. See additional descriptions below.

SANDY LOAM

yes

Does the soil feel very gritty?

no

SILT LOAM

yes

Does the soil feel very smooth?

no

LOAM

yes

Neither gritty nor smooth predominates.

SANDY CLAY LOAM

yes

Does the soil feel very gritty?

no

SILTY CLAY LOAM

yes

Does the soil feel very smooth?

no

CLAY LOAM

yes

Neither gritty nor smooth predominates.

SANDY CLAY

yes

Does the soil feel very gritty?

no

SILTY CLAY

yes

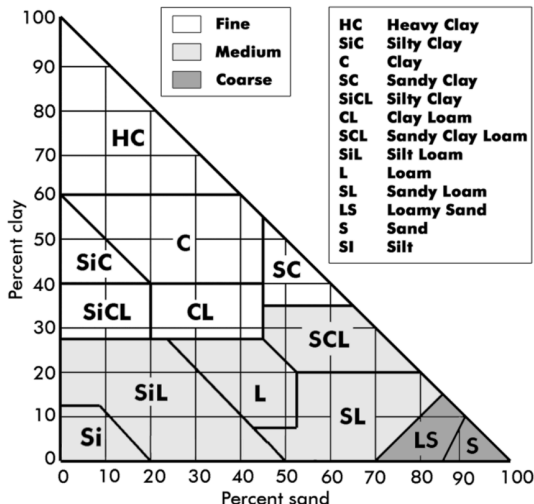
Does the soil feel very smooth?

no

CLAY

yes

Neither gritty nor smooth predominates.



FEEL TEST DESCRIPTIONS

- Sand - grainy/gritty; grains are visible for all but very fine grains
- Silt - non-sticky; feels smooth like flour or powder
- Clay - sticky; adheres to fingers and stretches before breaking

Hand texture key modified from S.J. Thien (1979)

SEPARATE	DIAMETER (mm)
Sand	0.05 - 2
Silt	0.002 - 0.05
Clay	< 0.002

