

SHRINKAGE LIMIT TEST

Date _____

Project _____

Boring No. _____

Sample or Specimen No.							
Shrinkage Dish No.							
Weight in grams	Dish plus wet soil						
	Dish plus dry soil						
	Water	$\frac{W}{W}$					
	Shrinkage dish						
	Dry soil	$\frac{W}{S}$					
	Displaced mercury + evaporating dish						
	Evaporating dish						
	Displaced mercury						
Volume in cc	Shrinkage dish (wet soil pat)	v					
	Volume of dry soil	$\frac{V}{S}$					
	$V - V_S$						
	$\frac{V - V_S}{W_S} \times 100$						
Water content = $\frac{W_w}{W_s} \times 100$		w					
Shrinkage limit		SL					
Shrinkage ratio		R					

$$V_s = \frac{\text{weight of displaced mercury}}{\text{specific gravity of mercury (13.53 g/cc)}}$$

SL = Water content of wet soil pat

$$= \left(\frac{\text{volume of wet soil pat} - \text{volume of oven-dry soil pat}}{\text{wt of oven-dry soil pat}} \right)$$

$$= W - \left(\frac{V - V_s}{W_s} \times 100 \right)$$

$$R = \frac{\text{wt of oven-dry soil pat}}{\text{volume of oven-dry soil pat}} = \frac{W_s}{V_s}$$

Classification: _____

Remarks _____

Technician _____ Computed by _____ Checked by _____