Print Form | E-mail

DIRECT SHEAR TEST

(Specimen Data)

For use of this form, see EM 1110-2-1906; the proponent agency is CECW-EG.

1. PROJECT	2. DATE *(YYYYMMDD)*
3. BORING NUMBER	4. SAMPLE NUMBER
5. SHEAR BOX NUMBER	6. NORMAL STRESS T/sq. ft.
7. SPECIMEN NUMBER	8. CLASSIFICATION

9. TARE NUMBER		(1) BEFORE TEST			(2) AFTER TEST	
		(a) SPECIMEN	(b) TRIMMINGS		(a) SPECIMEN	
		CUTTER AND GLASS PLATES				
WEIGHT IN GRAMS	9.1. TARE PLUS WET SOIL					
	9.2. TARE PLUS DRY SOIL					
	a. WATER	W_W	W_{wo}		W_{wf}	
	9.3. TARE					
	a. WET SOIL	W				
	b. DRY SOIL	W_S				
9.4. WATER CONTENT		W	W_o		W_f	

10. INITIAL CONDITION OF SPECIMEN

a. AREA IN sq. cm.	A		e. VOLUME OF SOLIDS IN cc.	V_s	
b. HEIGHT IN cm.	H_o		f. VOID RATIO = $(V_o - V_s) \div V_s$	e_o	
c. VOLUME IN cc = A x H_o	V_o		g. SATURATION, %	S_o	
d. SPECIFIC GRAVITY OF SOLIDS	G_s		h. DRY DENSITY IN lb. / cu. ft.	γ_d	

11. CONDITION OF SPECIMEN AFTER CONSOLIDATION

a. CHANGE IN HEIGHT DURING CONSOLIDATION, in.	ΔH_o		c. VOLUME IN cc = A X H_c	V_c	
b. HEIGHT IN cm = $H_o - 2.54\Delta H_o$	H_c		d. VOID RATIO = $(V_c - V_s) \div V_s$	e_f	

12. CONDITION OF SPECIMEN AFTER TEST

a. CHANGE IN HEIGHT DURING SHEAR TEST, in.	ΔH_o		d. VOLUME IN cc = A X H_f	V_f	
b. HEIGHT IN cm = $H_c - 2.54\Delta H$	H_f		e. VOID RATIO = $(V_f - V_s) \div V_s$	e_f	
c. SATURATION, %	S_f				

$$W_s = \frac{W}{1 + \frac{W_o}{100}}, \quad V_s = \frac{W_s}{G_s}, \quad S_o = \frac{\frac{W_o}{100} \times \frac{W_s}{\gamma_w}}{V_o - V_s} \times 100, \quad S_f = \frac{\frac{W_f}{100} \times \frac{W_s}{\gamma_w}}{V_f - V_s} \times 100, \quad \gamma_d = \frac{W_s}{V_o} \times 62.4$$

13. REMARKS	14a. DATE *(YYYYMMDD)*	b. TECHNICIAN'S SIGNATURE
	15a. DATE *(YYYYMMDD)*	b. COMPUTED BY SIGNATURE
	16a. DATE *(YYYYMMDD)*	b. CHECKED BY SIGNATURE