

ARIZONA DEPARTMENT OF TRANSPORTATION  
MATERIALS GROUP  
SOILS AND AGGREGATE LABORATORY WORKSHEET

LAB #	PROJECT #	TRACS#			
	<b>FLAKINESS INDEX</b>  (AZ 233)	<b>CHECKED BY:</b>			

SIEVE SIZE	1/2"	3/8"	1/4"	#4	#8
% Ret. from Sieve Analysis (F)					
% Pass from Sieve Analysis					
Weight Passing Slot					
Weight of Split			200	100	50
**% Passing Slot (P)					

When testing MA for ACFC,  
or Aggregate cover material only

\*\*% Passing Slot =  $\frac{\text{Wt. Passing Slot}}{\text{Wt. of Split}} \times 100$

**NOTE:** Only the size fractions which have 10 percent -or more - retained are tested for passing the appropriate slot and used in the equation below.

**EQUATION:** FLAKINESS INDEX = 
$$\frac{[F(1/2'') \times P(1/2'')] + \dots + [F(\#8) \times P(\#8)]}{F(1/2'') + \dots + F(\#8)}$$

**CALCULATION:** FLAKINESS INDEX = \_\_\_\_\_ = \_\_\_\_\_ %

	SAND EQUIVALENT	CHECKED BY:
WASHED	(AASHTO T176)	
UNWASHED	(AZ 242 for MAFC)	
SAND READING = _____		
CLAY READING = _____		
SAND EQUIV. = _____		
SAND READING = _____		
CLAY READING = _____		
SAND EQUIV. = _____		
SAND READING = _____		
CLAY READING = _____		
SAND EQUIV. = _____		
AVERAGE SAND EQUIVALENT = _____		

ABRASION	CHECKED BY:
(AASHTO T 96)	
% Abrasion = $\frac{A-B}{A} \times 100$	
Where A = Original Mass (5000 ± 10 grams) B= Plus #12 Material after Abrasion	
100 Rev: _____	x 100 = _____ %
500 Rev: _____	x 100 = _____ %
Type of Abrasion	_____

FRACTURED COARSE AGGREGATE PARTICLES			CHECKED BY:
(AZ 212)			
	AT LEAST ONE FRACTURED FACE	AT LEAST TWO FRACTURED FACES	
Fractured Faces Weight (Wf)			grams
Total Sample Weight (Wa)	300	300	grams
Fractured Faces (FF)= Wf/Wa x 100			%

TEST OPERATOR AND DATE PERFORMED	DATE
Abrasion	
Sand Equiv.	
Fractured Coarse Agg. Particles	
Flakiness Index	