

Flakiness Index (Ariz 233)

Fractured Particles (T-335)

Sieve Size	1-1/2"	1"	3/4"	1/2"	3/8"	1/4"	#4	#8
% Pass from Sieve Analysis								
% Ret. From Sieve Analysis (F)								
Weight of Test Sample								
Weight Passing Slot								
*Percent Passing Slot (P)								
NOTE: Only the size fractions which have 10 or more percent retained are tested for passing the appropriate slot, and used to determine the Flakiness Index by the equation below.	*Percent Passing Slot (P) = $\frac{\text{Weight Passing Slot}}{\text{Weight of Test Sample}} \times 100$							

At least one Fractured Face:

Wt. of Fract. Particles (F) = _____

Wt. of Non-Fract. particles (N) = _____

Wt. of Questionable particles (Q) = _____

$$P = \left(\frac{F + \frac{Q}{2}}{F + Q + N} \right) \times 100$$

At least two Fractured Faces:

Wt. of Fract. Particles (F) = _____

Wt. of Non-Fract. particles (N) = _____

Wt. of Questionable particles (Q) = _____

Fractured Particles = _____ (%)

$$\text{FLAKINESS INDEX} = \frac{[F(1-1/2") \times P(1-1/2")] + \dots + [F(\text{No. 8}) \times P(\text{No. 8})]}{[F(1-1/2") + \dots + F(\text{No. 8})]}$$

FLAKINESS INDEX = _____ = _____ %

				Dimension Ratio Used:			
	A	B	C	D	E	F	
Size Fractions (Passing by Retained)	Cumulative Percentage Passing (%)	Individual Percentage Retained (%)	Weight of Sample (g)	Weight of Flat & Elongated Particles (g)	Percentage Flat & Elongated Particles ($\frac{D}{C} \times 100$)	Individual % Retained x % F&E Particles (B x E)	
3 in. x 2 in.							
2 in. x 1 1/2 in.							
1 1/2 in. x 1 in.							
1 in. x 3/4 in.							
3/4 in. x 1/2 in.							
1/2 in. x 3/8 in.							
3/8 in. x No. 4							
Total of Column B →			Total of Column F →				
			% Flat & Elongated Particles = $\frac{\text{Total F}}{\text{Total B}} = \frac{\quad}{\quad} = \quad \%$				

Specific Gravity and Absorption of Coarse Aggregate (T-85)

(O.D. basis) $\frac{A}{B - C} = \frac{\quad}{(\quad) - (\quad)} = \quad$

where: A = mass of oven-dry sample in air, g.
B = mass of saturated-surface-dry sample in air, g.
C = mass of saturated sample in water, g.

Bulk Sp. Gr. (SSD basis) = $\frac{B}{B - C} = \frac{\quad}{(\quad) - (\quad)} = \quad$

Apparent Sp. Gr.. = $\frac{A}{A - C} = \frac{\quad}{(\quad) - (\quad)} = \quad$

Absorption, percent = $\frac{B - A}{A} \times 100 = \frac{(\quad) - (\quad)}{(\quad)} \times 100 = \quad \%$