

**Table 2360.3-B2a
Mixture Aggregate Requirements**

Aggregate Blend Property	Traffic Level 2	Traffic Level 3	Traffic Level 4	Traffic Level 5	SMA T. Level 6
20 year Design ESAL's	<1 million	1 - 3 million	3 - 10 million	10 – 30 million	See SMA Provisions
Coarse Aggregate Angularity (ASTM D5821) (one face / two face), %- Wear (one face / two face), %- Non-Wear	30/- 30/-	55 / - 55 / -	85 / 80 60/ -	95 / 90 80 / 75	-
Fine Aggregate Angularity (FAA) (AASHTO T304, Method A) %- Wear %-Non-Wear	40 ⁽²⁾ 40 ⁽²⁾	42 40	44 40	45 40	-
Flat and Elongated Particles, max % by weight, (ASTM D 4791)	-	10 (5:1 ratio)	10 (5:1 ratio)	10 (5:1 ratio)	-
Clay Content (AASHTO T 176)	-	-	45	45	-
Total Spall in fraction retained on the #4 [4.75mm] sieve – Wear Non-Wear	5.0 5.0	2.5 5.0	1.0 2.5	1.0 2.5	-
Maximum Spall Content in Total Sample – Wear Non-Wear	5.0 5.0	5.0 5.0	1.0 2.5	1.0 2.5	-
Maximum Percent Lumps in fraction retained on the #4 [4.75mm] sieve	0.5	0.5	0.5	0.5	-
Class B Carbonate Restrictions					
Maximum% -#4 [-4.75mm] Final Lift/All other Lifts	100/100	100/100	80/80	50/80	-
Maximum% +#4 [+4.75mm] Final Lift/All other Lifts	100/100	100/100	50/100	0/100	-
Max. allowable RAP percentage ⁽¹⁾ Wear / Non Wear	30/40	30/30	30/30	30/30	-
Max. allowable scrap shingles–MWSS ⁽²⁾⁽³⁾ Wear/Non Wear	5/5	5/5	5/5	5/5	-
Max. allowable scrap shingles –TOSS ⁽²⁾⁽³⁾ Final Lift/All other Lifts	5/5	5/5	0/5	0/0	-

- (1) When shingles are included as part of the allowable RAP percentage in Traffic Level 2, 3, 4, or 5 mixtures the ratio of added new asphalt binder to total asphalt binder shall be 70% or greater ((added binder/total binder) x 100 >= 70). A minimum of 1 spotcheck per day per mixture blend is required to determine new added binder.
- (2) MWSS is manufactured waste scrap shingle and TOSS is tear-off scrap shingle.
- (3) RAS may be included in the mixture to a maximum of 5 percent of the total weight of mixture as shown in Table 2360.3-B2a. Either manufactured waste scrap asphalt shingles (MWSS) or tear-off scrap asphalt shingles (TOSS) may be included in the mixture.