

Special Provision to Item 302

Aggregates for Surface Treatments



Item 302, "Aggregates for Seal Coats," of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Section 2.1., "Aggregate." The fourth paragraph is voided and replaced by the following:

Furnish aggregates that meet the quality requirements shown in Table 3, unless otherwise shown on the plans. When Limestone Rock Asphalt (LRA) is used, furnish in accordance with DMS-9210, "Limestone Rock Asphalt (LRA)." Provide aggregates from sources listed in the Department's Bituminous Rated Source Quality Catalog (BRSQC). If a source is not listed in the catalog or its listed ratings do not meet requirements of the plans, material from that source may be used only when tested by the Engineer and approved before use. Allow 30 calendar days for testing of material from such sources.

Section 2.1., "Aggregate." Tables 2 and 3 are voided and replaced by the following.

Table 2
Aggregate Gradation Requirements (Cumulative % Retained¹)

Sieve	Grade									
	1	2	3S ²	3		4S ²	4	4P	5S ²	5 ³
				Non-Lightweight	Lightweight					
1"	-	-	-	-	-	-	-	-	-	-
7/8"	0-2	0	-	-	-	-	-	-	-	-
3/4"	20-35	0-2	0	0	0	-	-	-	-	-
5/8"	85-100	20-40	0-5	0-5	0-2	0	0	0	-	-
1/2"	-	80-100	55-85	20-40	10-25	0-5	0-5	0-5	0	0
3/8"	95-100	95-100	95-100	80-100	60-80	60-85	20-40	20-40	0-5	0-5
1/4"	-	-	-	95-100	95-100	-	-	-	65-85	-
#4	-	-	-	-	-	95-100	95-100	90-100	95-100	50-80
#8	99-100	99-100	99-100	99-100	98-100	98-100	98-100	97-100	98-100	98-100

1. Round test results to the nearest whole number.
2. Single-size gradation.
3. Grade 5S may be substituted for Grade 5 for LRA only, unless otherwise approved by the Engineer.

**Table 3
Aggregate Quality Requirements**

Property	Test Method	Requirement ¹	
		Minimum	Maximum
SAC	AQMP	As shown on the plans	
Deleterious Material ² , %	Tex-217-F , Part I	-	2.0
Decantation, %	Tex-406-A	-	1.5
Flakiness Index, %	Tex-224-F	-	17
Gradation	Tex-200-F , Part I	Table 2 Requirements	
Los Angeles Abrasion, %	Tex-410-A	-	35
Magnesium Sulfate Soundness, 5 Cycle, %	Tex-411-A	-	25
Micro-Deval Abrasion, %	Tex-461-A	Note 3	
Coarse Aggregate Angularity ⁴ , 2 Crushed Faces, %	Tex-460-A , Part I	85	-
Additional Requirements for Lightweight Aggregate			
Dry Loose Unit Wt., lb./cu. ft.	Tex-404-A	35	60
Pressure Slaking, %	Tex-431-A	-	6.0
Freeze-Thaw Loss, %	Tex-432-A	-	10.0
Water Absorption, 24hr., %	Tex-433-A	-	12.0

1. Material requirements are listed below, unless otherwise shown on the plans.
2. Not required for lightweight aggregate.
3. Used to estimate the magnesium sulfate soundness loss in accordance with Section 2.1.1.
4. Only required for crushed gravel.

Section 2.1.1., “Micro-Deval Abrasion,” is added.

The Engineer will perform a minimum of one Micro-Deval abrasion test in accordance with [Tex-461-A](#) for each coarse aggregate source per project that has a Rated Source Soundness Magnesium (RSSM) loss value greater than 15 as listed in the BRSQC. The Engineer may waive all Micro-Deval testing based on a satisfactory test history of the same aggregate source.

The Engineer will estimate the magnesium sulfate soundness loss for each coarse aggregate source, when tested, using the following formula.

$$Mg_{est.} = (RSSM)(MD_{act.}/RSMD)$$

where:

$Mg_{est.}$ = magnesium sulfate soundness loss

$MD_{act.}$ = actual Micro-Deval percent loss

$RSMD$ = Rated Source Micro-Deval

When the estimated magnesium sulfate soundness loss is greater than the maximum magnesium sulfate soundness loss specified, the coarse aggregate source will not be allowed for use unless otherwise approved by the Engineer. The Engineer may require additional testing before granting approval.

Section 2.2., “Precoating.” The first paragraph is voided and replaced by the following.

When precoating is shown on the plans, precoat aggregate uniformly and adequately with asphalt material to the satisfaction of the Engineer. When shown on the plans, specific aggregates may be prohibited from being precoated. Meet Table 2 and 3 requirements before precoating. Furnish precoated aggregate that spreads uniformly using approved mechanical spreading equipment.

Section 2.2., “Precoating.” The third paragraph is voided and replaced by the following.

The Engineer retains the right to remove precoat material from aggregate samples in accordance with [Tex-210-F](#), or as recommended by the Materials and Tests Division, and test the aggregate to verify compliance with Table 2 and Table 3 requirements. Gradation testing may be performed with precoat intact.

Section 2.2.1., “Asphalt Material.” The paragraph is voided and replaced with the following:

Precoat the aggregates with asphalt material that meets the requirements of Item 300, “Asphalts, Oils, and Emulsions.” Unless a specific precoat material is specified on the plans, use any asphalt material that meets the requirements of Item 300.

Section 2.3., “Sampling,” is added.

Personnel who conduct sampling and witnessing of sampling must be certified by the Department-approved certification program. Supply the Engineer with a list of certified personnel and copies of their current certificates before beginning construction and when personnel changes are made. At any time during the project, the Engineer may perform production tests as deemed necessary in accordance with Item 5, “Control of the Work.”

The Engineer will sample aggregate from stockpiles located at the production site, intermediate distribution site, or project location in accordance with [Tex-221-F](#), Section 3.2.3. The Engineer will split each sample into two equal portions in accordance with [Tex-200-F](#), Section 3.3, and label these portions “Engineer” and “Contractor” or “Supplier.” Witness the sampling and splitting, and take immediate possession of the samples labeled “Contractor” or “Supplier.”

Section 2.4., “Reporting and Responsibilities,” is added.

The Engineer will provide test results to the Contractor and Supplier within 10 working days from the date the stockpile was sampled for sources listed on the Department’s Bituminous Rated Source Quality Catalog (BRSQC), unless otherwise directed. The Engineer will provide test results for the LA Abrasion ([Tex-410-A](#)) and Magnesium Sulfate Soundness ([Tex-411-A](#)) tests within 30 calendar days for sources not listed on the BRSQC, or for sources not meeting the requirements of Section 2.1.1., “Micro-Deval Abrasion.” The Engineer will report to the other party within 24 hr. when any test result does not meet the requirements listed in Table 2 or Table 3.

Section 4., “Construction,” is supplemented with the following.

Stockpiling of Aggregates. Provide a smooth and well-drained area, cleared of trash, weeds, and grass. Build stockpiles in a manner that will minimize aggregate degradation and segregation. Avoid contamination and mixing of stockpiles. Provide aggregate stockpiles for a minimum of two days’ production before beginning plant operations. Maintain at least a 2-day aggregate supply through the course of the project unless otherwise directed. Stockpile aggregate for each source and type separately.

Materials Stockpile Life. Stockpile life is defined as one year from the date of testing. Non-precoated surface treatment aggregate remaining in stockpiles after one year may be resubmitted for testing. Precoated surface treatment aggregate remaining in stockpiles after one year will no longer be approved for Department use and will be removed from the Department approved stockpile area.