

**SB Certification Handout  
Material Requirements,  
Test Methods, Responsibilities, and Minimum Classification Levels  
for  
Mixture-Based Specification for Flexible Base**

Product 0-6621-P2 part 2 of 2  
(Part 1 is a presentation file)  
October 31, 2012

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**Table 1. Material Requirements.**

Property	Test Method	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Master gradation sieve size (cumulative % passing)						
2 ½ in	Tex-110-E	-	0	0	As shown on the plans	100
1 ¾ in		100	90-100	90-100		95-100
7/8 in		65-90	-	-		65-90
3/8 in		50-70	-	-		35-65
No. 4		35-55	25-55	25-55		25-50
No. 40		15-30	15-40	15-50		10-30
No. Y						
Liquid limit, % max <sup>1</sup>	Tex-104-E	35	40	40	As shown on the plans	35
Plasticity index, max <sup>1</sup>	Tex-106-E	10	12	12	As shown on the plans	10
Plasticity index, min <sup>1</sup>		As Shown on Plans				
Wet ball mill, max <sup>2</sup>	TEX-116-E	40	45	-	As shown on the plans	40
Wet ball mill, % max Increase passing the No. 40 sieve		20	20	-	As shown on the plans	20
Sulfate content, max ppm	Tex-145-E					
Min. compression strength, psi	Tex-117-E				As shown on the plans	
lateral pressure, 0 psi		45	35	-		-
lateral pressure, 3 psi		-	-	-		90
lateral pressure, 15 psi		175	175	-		175

<sup>1</sup> Determine plasticity index in accordance with Tex-107-E (linear shrinkage) when liquid limit is unattainable as defined in Tex-104-E.

<sup>2</sup> When a soundness value is required by the plans, test material in accordance with Tex-411-A.

<sup>3</sup> When Classification is required by other plans, a triaxial Classification of 1.0 or less for Grades 1 and 2.3 or less for Grade 2 is required. The Classification requirement for Grade 4 will be as shown on the plans.

**Table 2. Test Methods, Test Responsibility, and Minimum Certification Levels.**

Test Description	Test Method	Contractor	Engineer	Level
1. Aggregate and Recycle Material Testing				
Sampling	Tex-400-A	x	x	SB 101
Sample Preparation	Tex-101-E	x	x	SB 101
Liquid Limit	Tex-104-E	x	x	SB 101
Plastic Limit	Tex-105-E	x	x	SB 101
Calculate Plasticity Index	Tex-106-E	x	x	SB 101
Linear Shrinkage	Tex-107-E	x	x	SB 101, 2
Sieve Analysis of Soils	Tex-110-E	x	x	SB 101
Wet Ball Mill	Tex-116-E	x	x	SB 101
Sulfate Content	Tex-145-E	x	x	SB 103
Dry Sieve	Tex-200-F, Part I	x	x	IA
Wet Sieve	Tex-200-F, Part II	x	x	IA
Decantation	Tex-406-A Tex-217-F, Part II	x	x	Not available 2
Sulfate Soundness	Tex-411-A	x	x	Not available
Deleterious Material	Tex-413-A Tex-217-F, Part I	x	x	Not available 2
Crushed Faces	Tex-460-A	x	x	2
2. Mix Design and Verification				
Moisture Content	Tex-103-E	x	x	SB 102

Test Description	Test Method	Contractor	Engineer	Level
Moisture Content	Tex-115-E	x	x	SB 102
Moisture Density Relationships	Tex-113-E	x	x	SB 201
Triaxial Compression	Tex-117-E	x	x	SB 202
3. Production Testing				
Sampling	Tex-100-E	x	x	SB 101
Sampling	Tex-400-A	x	x	SB 101
Sample Preparation	Tex-101-E	x	x	SB 101
Liquid Limit	Tex-104-E	x	x	SB 101
Plastic Limit	Tex-105-E	x	x	SB 101
Calculate Plasticity Index	Tex-106-E	x	x	SB 101
Linear Shrinkage	Tex-107-E	x	x	SB 101
Sieve Analysis of Soils	Tex-110-E	x	x	SB 101
Wet Ball Mill	Tex-116-E	x	x	SB 101
Sulfate Content	Tex-145-E	x	x	SB 103
Dry Sieve	Tex-200-F, Part I	x	x	IA
Wet Sieve	Tex-200-F, Part II	x	x	IA
Decantation	Tex-406-A Tex-217-F, Part II	x	x	Not available 2
Sulfate Soundness	Tex-411-A	x	x	Not available
Deleterious Material	Tex-413-A Tex-217-F, Part I	x	x	Not available 2

Test Description	Test Method	Contractor	Engineer	Level
Crushed Faces	Tex-460-A	x	x	2
Moisture Content	Tex-103-E	x	x	SB 102
Moisture Content	Tex-115-E	x	x	SB 102
Moisture Density Relationship	Tex-113-E	x	x	SB 201
Selecting Random Numbers	Tex-225-F, Part I	x	x	IA
Control Charts	Tex-233-F	x	x	IA
4. Placement Testing				
Moisture Content	Tex-103-E	x	x	SB 102
Moisture Density Relationship	Tex-113-E	x	x	
Field In-Place Density	Tex-115-E	x	x	SB 102
Triaxial Compression	Tex-117-E	x	x	SB 202
Depth	Tex-140-E	x	x	SB 102
Selecting Random Numbers	Tex-225-F, Part II	x	x	IA
Control Charts	Tex-233-F	x	x	IA
5. Prime Coat				
Prime Coat Sampling	Tex-500-C, Part III	x	x	IA