**OPEN GRADED ASPHALT FRICTION COURSE, PERMEABLE ASPHALT DRAINAGE COURSE, AND ULTRA-THIN BONDED WEARING COURSE:**

|  |  |  |
| --- | --- | --- |
| (4-17-12)(Rev. 12-15-15) | 609, 610 | SP6 R62 |

When producing and constructing open graded asphalt friction course, permeable asphalt drainage course, and ultra-thin bonded wearing course revise the *2012* *Standard Specifications* as follows:

**Page 6-10, Subarticle 609-6(B) Required Sampling and Testing Frequencies,** delete the third paragraph and replace with the following:

Sample and test the completed mixture from each mix design per plant per year at the following minimum frequency during mix production:

|  |  |
| --- | --- |
| Accumulative Production Increment | Number of Samples per Increment |
| 500 tons | 1 |

**Page 6-10, Subarticle 609-6(C) Control Charts,** delete the fourth paragraph and replace with the following:

Record the following data on the standardized control charts and in accordance with the requirements of Section 7.4 of the *HMA/QMS Manual*:

(a) Aggregate Gradation Test Results:

1. 12.5 mm (Types P57 & FC-2 Mod. Only)

2. 9.5 mm (Excluding Type P57)

3. 4.75 mm

4. 2.36 mm

5. 0.075 mm Sieves

(b) Binder Content, %, Pb

**Page 6-11, Subarticle 609-6(D)** **Control Limits, Table 609-1 CONTROL LIMITS**, replace with the following:

|  |  |  |  |
| --- | --- | --- | --- |
| **TABLE 609-1**  **CONTROL LIMITS** | | | |
| **Mix Control Criteria** | **Target Source** | **Moving Average Limit** | **Individual Limit** |
| 12.5 mm Sieve (Types P57 & FC-2 Mod) | JMF | ± 4.0 | ± 8.0 |
| 9.5 mm Sieve (Excluding Type P57) | JMF | ± 4.0 | ± 8.0 |
| 4.75 mm Sieve | JMF | ± 4.0 | ± 8.0 |
| 2.36 mm Sieve | JMF | ± 4.0 | ± 8.0 |
| 0.075 mm Sieve | JMF | ± 1.5 | ± 2.5 |
| Binder Content | JMF | ± 0.3 | ± 0.7 |
| TSR (Ultra-thin Only) | Min. Spec. Limit | - | - 15% |

**Page 6-12, Subarticle 609-6(F)** **Allowable Retesting for Mix Deficiencies,   
Table 609-2** **RETEST LIMITS FOR MIX DEFICIENCIES,** replace with the following**:**

|  |  |
| --- | --- |
| **TABLE 609-2**  **RETEST LIMITS FOR MIX DEFICIENCIES** | |
| **Property** | **Limit** |
| % Binder Content | by more than ± 1.0% |
| 12.5 mm Sieve (Types P 57 & FC-2 Mod) | by more than ± 9.0% |
| 9.5 mm Sieve (Excluding Type P 57) | by more than ± 9.0% |
| 4.75 mm sieve | by more than ± 9.0% |
| 2.36 mm sieve | by more than ± 9.0% |
| 0.075 mm sieve | by more than ± 3.0% |
| TSR (Ultra-thin only) | by more than -15%  from Specification limit |

**Page 6-17, Subarticle 609-9(C) Limits of Precision, Table 609-3 LIMITS OF PRECISION FOR TEST RESULTS**, replace with the following:

|  |  |
| --- | --- |
| **TABLE 609-3**  **LIMITS OF PRECISION FOR TEST RESULTS** | |
| **Mix Property** | **Limits of Precision** |
| 12.5 mm Sieve (Types P 57 & FC-2 Mod. Only) | ± 6.0% |
| 9.5 mm Sieve (Excluding Type P 57) | ± 5.0% |
| 4.75 mm Sieve | ± 5.0% |
| 2.36 mm Sieve | ± 5.0% |
| 0.075 mm Sieve | ± 2.0% |
| Asphalt Binder Content | ± 0.5% |
| TSR (Ultra-thin HMA Only) | ± 15.0% |

**Page 6-19, Article 610-3, COMPOSITION OF MIXTURES (MIX DESIGN AND JOB MIX FORMULA),** **lines 23-24**, replace the second sentence in the fifth paragraph with the following:

RAS material may constitute up to 6% by weight of total mixture for any mix with the exception of OGAFC which may constitute up to 5% by weight.

**Page 6-19, Article 610-3, COMPOSITION OF MIXTURES (MIX DESIGN AND JOB MIX FORMULA),** **line 32**, add the following after the fifth sentence of the fifth paragraph:

For OGAFC, the maximum percent of binder contributed from RAS or a combination of RAS and RAP is 18%.