May 8, 2014

REVISION OF SECTION 703

MINERAL FILLER

**NOTICE**

This is a standard special provision that revises or modifies CDOT’s *Standard Specifications for Road and Bridge Construction.* It has gone through a formal review and approval process and has been issued by CDOT’s Project Development Branch with formal instructions for its use on CDOT construction projects. It is to be used as written without change. Do not use modified versions of this special provision on CDOT construction projects, and do not use this special provision on CDOT projects in a manner other than that specified in the instructions unless such use is first approved by CDOT’s Standards and Specifications Unit. The instructions for use on CDOT construction projects appear below.

Other agencies which use the *Standard Specifications for Road and Bridge Construction* to administer construction projects may use this special provision as appropriate and at their own risk.

**Instructions for use on CDOT construction projects:**

Use in projects having Stone Matrix Asphalt (SMA).

May 8, 2014

REVISON OF SECTION 703

MINERAL FILLER

Section 703 of the Standard Specifications is hereby revised for this project as follows:

Subsection 703.06 shall include the following*:*

If mineral filler other than limestone dust is used in Stone Matrix Asphalt (SMA) it shall consist of mineral matter that meet the requirements of Tables 703-8, 703-9 and the following:

Alternate mineral filler shall consist of finely divided mineral matter such as rock dust, slag dust, fly ash, loess, or other suitable mineral matter. Calcium Oxide content of any mineral filler shall not exceed 22 percent.

Alternate mineral filler test data shall be provided as part of the SMA mix design submittal and as required in Table 703-8 during production.

The Contractor shall sample and test alternative mineral filler at the frequencies listed in Table 703-8. Production will be suspended if alternate mineral filler test results fail to meet requirements. The Contractor shall submit written plans to correct the mineral filler operation to the Engineer for approval prior to commencing paving.

**Table 703-8**

**Required Testing for Alternate SMA Mineral Fillers**

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of Test** | **Contractor Testing Frequency** | **Specification Limit** | **Remarks** |
| Plasticity Index AASHTO T90 | One per 10,000 tons of SMA placed♦ | 4% Maximum | ▲ |
| Hydrometer AnalysisAASHTO T88 | One at Mix Design submittal | Report |  |
| GradationAASHTO T37 | One per 10,000 tons of SMA placed♦ | Table 703-9 | ▲ |
| Calcium OxideContent ASTM C25 | One at Mix Design submittal | 22% Maximum |  |
| Modified Rigden Voids – NAPA Publication IS-101 | One per 10,000 tons of SMA placed♦ | Shall not exceed 50 | ▲ |
| ♦ The minimum frequency shall be twice per project▲ Sampling of alternate mineral fillers shall be at the point of introduction to the SMA and a split sample shall be submitted to the Engineer |

**Table 703-9**

**Alternate SMA Mineral Gradation**

|  |
| --- |
| (AASHTO M17/ASTM D 242-95) |
| **Sieve** | **Percent Passing** |
| 600 µm (#30) | 100 |
| 300 µm (#50) | 95 - 100 |
| 75 µm (#200) | 70 - 100 |