## Section 703. — AGGREGATE

11/08/21–FP14

WFL Specification 11/08/21 7030005

Include the following when portland cement concrete is required.

### 703.02 Coarse Aggregate for Concrete.

 Delete the text in paragraph (b) and substitute the following:

**(b)** Grading, AASHTO M 43 All sizes

WFL Specification 08/01/14 7030010

Include the following when Section 301 is required.

### 703.05 Subbase, Base, and Surface Course Aggregate.

Amend as follows:

Delete text in paragraph (a) and substitute the following:

**(a) General.** Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel conforming to the following:

**(1)** Los Angeles abrasion, AASHTO T 96 35 percent max.

**(2)** Soundness of aggregate using sodium sulfate, AASHTO T 104 (course and fine) (5 cycles) 12 percent loss max.

**(3)** Durability index (coarse), AASHTO T 210 35 min.

**(4)** Durability index (fine), AASHTO T 210 35 min.

**(5)** Fractured faces, ASTM D5821 50 percent min.

**(6)** Without organic matter and lumps or balls of clay.

**(7)** Accelerated weathering of aggregate by use of Dimethyl Sulfoxide (DMSO), WFLHD Standard Test Method 12% max.

WFL Specification 04/02/21 7030020

Include the following when subbase or base aggregate is required.

Delete the text in paragraph (b) and substitute the following:

**(b) Subbase or base aggregate.** In addition to paragraph (a) above, conform to the following:

**(1)** Gradation Table 703-2

**(3)** SEP (SE/P200) (SE/P75 Index) 1.000 min.

 Delete Table 703-2 and substitute the following:

Table 703–2

Target Value Ranges for Subbase and Base Gradation

| Sieve Size | Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11) |
| --- | --- |
| Grading Designation |
| A (Subbase) | B (Subbase) | C (Base) | D (Base) | E (Base) |
| 2½ inch (63 mm) | 100(1) |  |  |  |  |
| 2 inch (50 mm) | 97 - 100(1) | 100(1) | 100(1) |  |  |
| 1½ inch (37.5 mm) |  | 97 - 100(1) |  |  |  |
| 1 inch (25 mm) | 65 - 79 (6) |  | 80 – 100 (6) | 100(1) |  |
| ¾ inch (19 mm) |  |  | 64 - 94 (6) | 86 – 100 (6) | 100(1) |
| ½ inch (12.5 mm) | 45 - 59 (7) |  |  |  |  |
| ⅜ inch (9.5 mm) |  |  | 40 - 69 (6) | 51 – 82 (6) | 62 – 90 (6) |
| No. 4 (4.75 mm) | 28 - 42 (6) | 40 - 60 (8) | 31 - 54 (6) | 36 – 64 (6) | 46 - 74 (6) |
| No. 40 (425 µm) | 9 - 17 (4) |  |  | 12 - 26 (4) | 12 - 26 (4) |
| No. 200 (75 µm) | 10 max(1) | 10 max(1) | 10 max(1) | 10 max(1) | 10 max(1) |

(1) Statistical procedures do not apply.

( ) The value in the parentheses is the allowable deviations (±) from the target values.

WFL Specification 08/01/14 7030030

Include the following when calcium chloride stabilization is required. Coordinate with WFL Materials when using 703.05A.

### 703.05A Imported Surface Course Aggregate.

(Added Subsection)

Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel meeting the appropriate gradation.

Furnish a material that is free from organic matter and lumps or balls of clay. Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary. Fine aggregate, material passing the No. 4 sieve, shall consist of natural or crushed sand and fine mineral particles.

Do not furnish material that contains asbestos fibers. Conform to the following:

**(a)** Gradation Table 703-3A

**(b)** Los Angeles abrasion, AASHTO T 96 35% max.

**(c)** Sodium sulfate soundness loss (5 cycles), AASHTO T 104 (coarse and fine) 12% max.

**(d)** Durability Index, AASHTO T 210 (coarse and fine) 35 min.

**(e)** Accelerated weathering of aggregate by use of Dimethyl Sulfoxide (DMSO), WFLHD Standard Test Method 12% max.

**(f)** Fractured faces, ASTM D 5821 70% min.

**(g)** Liquid limit, AASHTO T 89, Method A & T 87 35 max.

**(h)** Plasticity index, AASHTO T 90 7 ±3

Table 703–3A

Target Value Ranges for
Surface Course Gradations

|  |  |
| --- | --- |
| Sieve Size | Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11) |
| 1 inch (25 mm) | 100 |
| ½ inch (12.5 mm) | 70 - 80 (5) |
| No. 4 (4.75 mm) | 40 - 50 (7) |
| No. 10 (2.0 mm) | 25 - 40 (6) |
| No. 40 (425 µm) | 15 - 25 (5) |
| No. 200 (75 µm) | 8 - 14 (4) |

Note: Statistical acceptance procedures do not apply to sieve seizes that require 100% passing. Allowable deviations (±) from the target values are shown in ( ).

WFL Specification 11/08/21 7030035

Include the following when Section 302 or crushed aggregate is required.

### 703.06 Crushed Aggregate.

 Delete the text of this Subsection and substitute the following:

Furnish hard, durable particles or fragments of crushed stone or gravel conforming to the size and quality requirements for crushed aggregate material normally used locally in the construction and maintenance of highways by Federal or state agencies. Furnish crushed aggregate with a maximum size of 1 inch (25 millimeters) as determined by AASHTO T 27 and AASHTO T 11. Furnish crushed aggregate well graded from coarse to fine and free of organic matter, lumps or balls of clay, and other deleterious material.

WFL Specification 10/01/15 7030040

Include the following when Section 401 is required.

### 703.07 Asphalt Concrete Aggregate.

Add the following after paragraph (g):

**(h)** Durability index, AASHTO T 210

**(1)** Course aggregate 35 min.

**(2)** Fine aggregate 35 min.

**(i)** Accelerated weathering of aggregate by use of Dimethyl Sulfoxide (DMSO), WFLHD Standard Test Method 12% max. loss