

DMS - 9204
FIBER ADDITIVES FOR BITUMINOUS MIXTURES

EFFECTIVE DATE: AUGUST 2004

9204.1. Description. This Specification governs the materials, composition, and quality of fiber additives for bituminous mixtures.

9204.2. Units of Measurements. The values given in parentheses (if provided) are not standard and may not be exact mathematical conversions. Use each system of units separately. Combining values from the two systems may result in nonconformance with the standard.

9204.3. Material Requirements.

A. General Requirements. Three types of fiber additives are described:

- Type A is loose cellulose fiber additive
- Type B is loose mineral fiber additive
- Type C is pelletized fiber additive.
 - If the pellets contain asphalt binder, provide the Engineer the composition (by weight) of the fiber and binder.
 - The binder properties and composition shall be such that the pellets will not adhere to one another during storage and use.
 - The fibers in the pellets must meet the requirements of either Type A or Type B.

B. Physical Requirements.

Table 1
Fiber Additive Physical Properties

Property	Type A	Type B	Type C
Cellulose Content, %	75, Min		
pH Value	7.5 ± 1.0		
Maximum Fiber Length, inches	0.2	0.25	
Average Fiber Length, inches	0.040 – 0.060		
Average Fiber Thickness, inches	0.002		
Bulk Density, lb/ft ³	1.5 – 2.3		Average of asphalt and fiber bulk densities
Shot Content, % (ASTM C612)		<ul style="list-style-type: none"> ▪ 95, Min, passing 250 micron ▪ 65, Min, passing 63 micron 	
Approximate Pellet Length, inches			0.16
Approximate Pellet Diameter, inches			0.24

9204.4. Measurement and Payment. The work performed and materials furnished as prescribed by this specification will not be measured or paid for directly, but will be considered subsidiary to the governing specifications for the items of construction in which these materials are used.

9204.5. Packaging Requirements. Type A and B fibers, which are added directly into a pugmill mixer, will be provided in sacks which will melt and which are otherwise suitable for addition directly into the mixer without adversely affecting the quality of the paving mixture. Packing for fiber additives introduced in other ways will be suitable for the method of addition used.

9204.6. Certification. The manufacturer of the fiber additive will certify that the materials meet all of the requirements described above. A certification letter must be submitted to a Department representative at the project when material is delivered.

9204.7. Sampling and Testing. The Department reserves the right to conduct random sampling of certified materials for testing. Department representatives may sample material upon delivery to the hot mix plant. CST/M&P reserves the right to test samples to verify compliance with this Specification. The Department tests will govern in all circumstances.

Costs of testing and sampling are normally borne by the Department. However, the costs of sampling and testing materials failing to conform to the requirements of this Specification are borne by the contractor or supplier. Costs of sampling and testing failing material will be assessed at the rate established by the Director or CST/M&P and in effect at the time of testing.

9204.8. Basis for Rejection. Any material that is moisture or soil damaged or which is otherwise harmed will be rejected and replaced at the contractor's expense.

9204.9. Archived Versions. Archived versions are available.