

**STATE OF OHIO
DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENTAL SPECIFICATION 826
ASPHALT CONCRETE WITH FIBERS**

April 18, 2008

826.01	General
826.02	Fibers
826.03	Composition
826.04	Mixing
826.05	Basis of Payment

826.01 General. This work consists of constructing a surface course or an intermediate course of aggregate, fiber and asphalt cement mixed in a central plant and spread and compacted on a prepared surface.

The requirements of 441 and 448 will apply; deviations from these are as shown.

826.02 Fibers. Use fibers specifically manufactured and drawn for use in asphalt concrete mixes. Use fibers having a uniform singular color of white to light gray, and conforming to the following requirements:

Fiber Type	A	B
Material	polyester	polypropylene
Denier;ASTM D 1577*	4.5 ± 1.5	4 ± 1
Length, inch	0.25 ± 0.02	0.39 ± 0.08
(mm)	(6.35 ± .51)	(9.91 ± 2.0)
Crimps; ASTM D 3937	None	None
Tensile strength, minimum, psi (Mpa); ASTM D 2256*	70,000(483)	40,000(276)
Specific gravity	1.36 ± 0.04	0.91 ± 0.04
Melting temperature, minimum, °F (°C)	475(246)	320(160)

*This data must be obtained prior to cutting the fibers

Furnish fibers according to the Department's Qualified Products List (QPL).

At least 2 weeks prior to the start of asphalt concrete production, the manufacturer of the fiber will furnish, directly to the Laboratory, certified test data for the fibers to be used on the project and a 10 foot (3 meter) uncut sample of the fiber.

During production, the District will obtain a random 0.5 pound (250 gram) sample of the finished fibers for each 24,000 pounds (11,000 kg) of fiber used. Forward the sample to the Laboratory.

826.03 Composition. Design the mix in accordance with 441.02. Use the fiber type specified at the

rate of 6.0 pounds/ton (3.0 kg/metric ton) of total mix.

Use no more than 10 percent reclaimed asphalt concrete pavement.

826.04 Mixing. Prior to the start of full production, produce a test batch of fiber asphalt concrete to demonstrate to the Laboratory how the fibers will be introduced and mixed into the asphalt concrete. Achieve satisfactory results before beginning full production. If during production an unsatisfactory mix is produced, cease production until a satisfactory test batch, as described above, is produced.

When a batch type plant is used, add fibers as per the manufacturer's recommendation to the heated aggregate prior to introduction of the asphalt cement. Mix the aggregate and fibers dry for a minimum of 10 seconds after introduction of the fibers. The Laboratory may increase this mixing time, if satisfactory results are not obtained.

When a drum mix type plant is used, introduce the fibers into the aggregates by the reclaimed material feed system or by an adjustable pipe near the asphalt feed pipe.

For Fiber B mixes, the temperature of the aggregate and asphalt cement will not exceed 295° F (146° C) where the fiber is introduced.

826.05 Basis of Payment. The Department will pay for accepted quantities at the contract price for:

Item	Unit	Description
826	Cubic Yard (Cubic Meter)	Asphalt concrete surface course, Type 1, Fiber Type_____
826	Cubic Yard (Cubic Meter)	Asphalt concrete intermediate course, Type 2, Fiber Type _____