

ASPHALT CONCRETE FRICTION COURSES – REINFORCING FIBER IN ASPHALT.
(11-17-15)

ARTICLE 337-2 is expanded by the following new Subarticle:

337-2.8 Reinforcing Fibers: When specified in the Contract Documents, provide reinforcing fibers conforming to the requirements below. For FC-5 mixtures, design the asphalt mixture with the reinforcing fiber. When using reinforcing fibers in FC-5 mixtures, do not use stabilizing fibers, as specified in 337-2.7. For FC-9.5 or FC-12.5 mixtures, design the mixture without the reinforcing fiber and do not alter the final mix design for the addition of fiber at the asphalt plant.

Add the reinforcing fiber at a rate of 1 pound per ton of total mix. Meet the requirements of 337-9.1 for the reinforcing fiber supply system. Furnish, with the mix design submittal, certified test data for the reinforcing fibers to be used on the project.

The physical properties of the reinforcing fibers shall be as follows:

1. Materials in a blend of polyolefin and poly-paraphenylene terephthalamide, para-aramid, or aramid
2. Length: 3/4 inch
3. Form: Fibrillated & Monofilament Fibers
4. Specific Gravity:
 - a. Polypropylene: 0.91
 - b. Aramid: 1.44
5. Tensile Strength:
 - a. Aramid: $\geq 400,000$ psi
6. Melt Temperature:
 - a. Polypropylene: $\geq 300^{\circ}\text{F}$
 - b. Aramid: $\geq 800^{\circ}\text{F}$
7. Acid/Alkali Resistance: Inert
8. Individual unit packaging:
 - a. Polyethylene: $(\text{C}_2\text{H}_4)_n\text{H}_2$
 - b. Melting point of $\geq 290^{\circ}\text{F}$