

SURFACE TECH

ACE XP Polymer Fiber 2021 Data Sheet

Materials:

Aramid Fiber Reinforcement. Provide ACE XP Polymer Fiber (pre-treated, Sasobit wax coated, aramid fiber) conforming to the requirements below. Design asphalt mix without fiber and do not alter the final mix design for the addition of fiber at the plant. Use the dosage rate of 3.4 oz. coated weight per ton of asphalt mix (of which 2.1 oz. is pure aramid). The fiber addition tolerance allowed shall be no less than 3.4 oz. coated weight (2.1 oz. pure aramid) and not more than 3.6 oz. coated weight (2.31 oz. pure aramid) per ton of asphalt mix. Please note that ACE XP Polymer Fiber contains 63% actual aramid fiber and 37% actual Sasobit wax, by weight. This pretreated, Sasobit wax coated fiber remains in the form of a fiber strand with over 10,000 individual fibers / strand that is efficiently conveyed to the asphalt mixing drum. In the mixing drum, the Sasobit wax completely melts allowing the dry fibers to disperse into the HMA or WMA asphalt mix.

Material Properties:

Material	para-Aramid (min 63% by weight)
Treatment	Sasobit (max 49% by weight)
Length	3/4" (19mm) or 1.5" (38mm)
Form	Wax Treated & Cut Fiber Clips
Color	Yellow
Specific Gravity	1.44 g/cm ³
Fiber Tensile Strength	400,000 psi
Fiber Melting Temperature	800F

Bituminous Mixing Plant:

Fiber Supply System. Add treated fibers manually or through specialized equipment that can accurately proportion or meter the proper amount per batch for batch plants, or continuously and in a steady uniform manner for drum plants.

Batch Plant. Feed treated aramid manually, or with machine operated equipment, onto RAP or aggregate belts, or directly into the pug mill or weigh hopper. Standard project HMA/WMA batch mixing times apply. Metering shall be based on batch size (tons) and dosage rate (oz/ton). Feeding shall occur in a constant stream-like manner during the heated aggregate mixing batch time. If necessary, increase the mixing time with heated aggregates to ensure the aramid fibers are uniformly distributed.

Drum Plant. Feed treated aramid manually, or with machine operated equipment, onto the RAP belt or directly into the mixing drum through the RAP Collar. Standard project HMA/WMA asphalt production rates apply. Metering shall be calibrated based on the asphalt production rate (tons/hr), and the dosage rate (oz/ton). Feeding shall occur in a constant stream-like manner. If necessary, increase the mixing time with heated aggregates to ensure the aramid fibers are uniformly distributed.

Store fibers in a dry environment out of contact with moisture.

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