

DIVISION 400 - STRUCTURES

SECTION 434 - HIGH PERFORMANCE CONCRETE (HPC)

434.02 MATERIALS.

Materials shall conform to the following Sections and Subsections:

Aggregates	902
Concrete, Mortar and Grout	905
Portland Cement Concrete	905.05
Concrete Admixtures and Curing Materials	906
Joint Materials	907
Reinforcement Steel	908.01
Permanent Metal Bridge Deck Forms	909.07
Concrete Penetrating Sealer Treatment	923.06(F)
Epoxy Bonding Compound	923.08
Epoxy Resin Mortar	923.09
Waterstops	923.17
Methacrylate Crack Sealer	923.06(I)

Materials, admixtures and methods of construction not specifically covered in the Plans and these Specifications shall conform to the latest edition of the AASHTO LRFD Bridge Design Specifications and the Standard Specifications of the New Jersey Turnpike Authority, Sixth Edition, dated 2004.

The ratio of coarse aggregate to fine aggregate shall be a minimum of 1.5 with a total coarse aggregate content not lower than 1800 lbs.

In order to achieve the desired resistance to chloride penetration, an appropriate proportion of pozzolanic material of silica fume and fly ash shall be provided in the mix design.

Proportions of pozzolanic materials shall be such that silica fume will replace a maximum of 5% of portland cement by weight and fly ash a maximum of 20% of the portland cement.

Silica Fume. Prior to submitting a mix design, a sample of the silica fume admixture shall be submitted to the Authority's testing laboratory and tested for conformity against the requirements of the latest AASHTO M 307 or ASTM C 1240 standard and shall be accompanied by a copy of the manufacturer's recommendations. Silica fume admixture shall be approved by the Engineer prior to its use on the Contract. Only one brand of silica fume admixture shall be used for the entire duration of the Contract. Silica fume admixture may be supplied either in dry or in slurry form. If the slurry form is used, it shall be homogeneous and agitated to prevent separation. The Contractor shall submit a procedure for the introduction of the silica fume into the mix for the Engineer's approval.

DIVISION 900 - MATERIALS

SECTION 923 - MISCELLANEOUS

923.06 DAMPPROOFING AND WATERPROOFING.

[Include the following with contracts specifying High Performance Concrete:]

The following Paragraph (I) is added:

(I) Methacrylate Crack Sealer

Methacrylate sealer shall be Sealate T-70 as manufactured by Transpo Industries, Inc., 20 Jones Street, New Rochelle, NY 10801, Tel. (914) 636-1000, OR Sika Pronto 19 as manufactured by SIKA Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071, Tel. (800) 933-7452, or an approved equal.