

SECTION 214—HYDRAULIC CEMENT

214.01—Description.

These specifications cover cements that harden when mixed with water. The various types have special characteristics to be used as denoted in other parts of these specifications.

214.02—Detail Requirements.

- (a) **Blended hydraulic cement** shall conform to the requirements of AASHTO M240, Type I(P) or Type I(S).
- (b) **Portland cements** shall conform to the requirements of AASHTO M85 except as follows:
 1. The SO_3 content as specified in ASTM C150 will be permitted provided the supporting data specified in ASTM C150 are submitted to the Department for review and acceptance prior to use of the material.
 2. Neither Type I nor Type II cement shall contain more than 1.0 percent alkalis ($\% \text{Na}_2\text{O} + \% 0.658\text{K}_2\text{O}$).
 3. When Type II cement is used, a maximum of 65 percent C_3S will be permitted provided the combined amount of C_3S and C_3A is not more than 73 percent.
 4. When Type III modified cement is used, the C_3A content of the cement shall be not more than 8 percent.
 5. The SiO_2 content shall be at least 20 percent.

SECTION 215—HYDRAULIC CEMENT CONCRETE ADMIXTURES

215.01—Description.

These specifications cover materials that are chemical or organic elements that may be added to a concrete mixture, when permitted elsewhere in these specifications, to achieve some desired effect.

215.02—Materials.

- (a) **Air-entraining admixtures** shall conform to the requirements of AASHTO M154.