

### **3101 PORTLAND CEMENT**

#### **3101.1 SCOPE**

Provide portland cement material for use in concrete applications.

#### **3101.2 REQUIREMENTS**

Supply portland cement from the certified source listed on the Approved/Qualified Products List, meeting the requirements of AASHTO M 85.

Include the following standardized cement certification statement with delivery invoices: "(insert company name) certifies that the cement produced at (insert plant and location) conforms to AASHTO M 85 and MnDOT Specification 3101 for Type (insert type) cement."

Do not change the source or color, or both, of cement on a project without the written approval of the Engineer.

#### **3101.3 SAMPLING AND TESTING**

Provide samples for testing meeting the requirements of the Schedule of Materials Control. Measure fineness in accordance with the air permeability test in AASHTO M 85.

### **3103 BLENDED HYDRAULIC CEMENT**

#### **3103.1 SCOPE**

Provide blended hydraulic cement material for use in concrete applications.

#### **3103.2 REQUIREMENTS**

Provide blended hydraulic cement from the certified source listed on the Approved/Qualified Products List, meeting the requirements of AASHTO M 240, Type IS or Type IP, or Type IL and the following modifications:

- (1) Fly ash constituent of the blended cement no greater than 25 percent,
- (2) Slag constituent of blended cement no greater than 35 percent,
- (3) Silica fume constituent of blended cement no greater than 7 percent, and
- (4) Include the following standardized cement certification statement with delivery invoices: "(insert company name) certifies that the cement produced at (insert plant and location) conforms to AASHTO M 240 and MnDOT Specification 3103 for type (insert type) cement."

Do not change the source or color, or both, of blended cement on a project without the written approval of the Engineer.

#### **3103.3 SAMPLING AND TESTING**

Provide samples for testing meeting the requirements of the Schedule of Materials Control.