

1222 ALKALI REACTIVITY OF AGGREGATES (MORTAR-BAR METHOD)
ASTM Designation C 1260 and C 1567 (Mn/DOT Modified)

1222.1 SCOPE

This test method provides a means of detecting the potential of an aggregate intended for use in concrete for undergoing alkali-silica reaction resulting in potentially deleterious internal expansion. ASTM C 1260 is used for cement only, while ASTM C 1567 is used when testing cement with other cementitious materials (slag, fly ash, etc.).

1222.2 MN/DOT MODIFICATIONS

The MN/DOT method is substantially the same as ASTM C 1260 and C 1567, except that the aggregate used is not crushed to a specific gradation; rather, the test is run using the aggregate as submitted provided it meets the requirements of Minnesota Standard Specification 3126. Measurements are taken on prepared specimens immediately after demolding ("initial" reading), after a one day soak in water only ("zero" reading) and then at 5, 8, 12 and 14 days after the "zero" reading during the sodium hydroxide soak period.

1222.3 SAMPLE PROPORTIONING

- A. The aggregate proportion is always 990 grams.
- B. The water proportion is always 206.8 milliliters.
- C. The cement, flyash and/or slag proportions are as follows:

TYPE	CEMENT (g)	FLYASH (g)	SLAG (g)
Holnam-Mason City, Type I/II	440	0	0
Holnam-Mason City w/ NSP Egan, Type C	352	88	0
Holnam-Mason City w/ Coal Creek, Type C	352	88	0
Holnam-Mason City w/ Holnam- Grancem Slag, Grade 100	286	0	154
Larfarge-Davenport, Type I/II	440	0	0
Larfarge-Davenport w/ NSP Egan, Type C	352	88	0
Larfarge-Davenport w/ Coal Creek, Type C	352	88	0
Larfarge-Davenport w/ Holnam- Grancem Slag, Grade 100	286	0	154

This page intentionally left blank