



Fig 1. TX DOT test for Alkali-Silica Resistance for the binder containing different amounts of CemPozz replacing Portland cement

**SPECIAL PROVISION**  
**421---XXX**  
**Hydraulic Cement Concrete**

For this project, Item 421, “Hydraulic Cement Concrete,” of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

**Article 421.2. Materials, Section B. Supplementary Cementing Materials (SCM)** is supplemented by the following:

**6. Modified Class F Fly Ash (MFFA).** Furnish MFFA conforming to the following requirements:

- a. Provide MFFA that meets the chemical, physical and consistency requirements of DMS-4610, “Fly Ash” for Class F fly ash. The MFFA must have less than 1.50 percent available alkalies as Na<sub>2</sub>O equivalent.
- b. Provide MFFA containing no more than 10% cement or cement-cement kiln dust.
- c. Provide MFFA that has been ground with a vibrating ball mill.

**Article 421.2. Materials, Section E. Aggregate, Section 1. Coarse Aggregate.** The last sentence of the fourth paragraph is voided.

**Article 421.2. Materials, Section E. Aggregate, Section 2. Fine Aggregate.** The fifth paragraph is voided and replaces by the following:

Acid insoluble (%) =  $\{(A1)(P1)+(A2)(P2)\}/100$

where:

*A1* = acid insoluble (%) of aggregate 1

*A2* = acid insoluble (%) of aggregate 2

*P1* = percent by weight of aggregate 1 of the fine aggregate blend

*P2* = percent by weight of aggregate 2 of the fine aggregate blend

**Article 421.2. Materials, Section E. Aggregate, Section 2. Fine Aggregate.** The eighth paragraph is voided and replaces by the following:

For all classes of concrete, provide fine aggregate with a fineness modulus between 2.30 and 3.10 as determined by Tex-402-A.

**Article 421.4. Construction, Section A. Classification and Mix Design, Section 6. Mix Design Options** is voided and replaced by the following:

Unless otherwise approved by the Engineer, replace 35 to 50% of the cement with MFFA.