**Bureau of Materials and Physical Research**
Illinois Modified ASTM C 579 – 01 (Reapproved 2006)
Effective Date: January 1, 2007
Revised Date: October 26, 2012

Standard Method of Test
for
# Compressive Strength of Chemical-Resistant Mortars, Grouts, Monolithic Surfacings, and Polymer Concretes

**Modifications apply only when testing material according to Check Sheet #17, Special Provision for Polymer Concrete, of the Supplemental Specifications and Recurring Special Provisions (January 1, 2012).**

| ***ASTM Section*** | ***Illinois Modification*** |
|---|---|
| 5.2.2 | Add the following:<br><br>A nonreactive release agent shall be used to coat each mold. |
| 6.5.1.2 New Section | *Polymer Concretes*—Mix a sufficient amount of the components in the proportions and in the manner specified by the manufacturer of the materials. Fill the molds in two equal lifts, tamping both lifts 16 times with a flat faced rod measuring 1/2 × 1/2 × 12 in. (13 × 13 × 300 mm). Add additional material as necessary, working down into the previously placed portion, and finish the surface flush with the top of the mold. |
| 7.4 New Section | *Polymer Concretes*—Cure the test specimens in air at 73° ± 4°F (23° ± 2°C) for at least 24 hours. At this time the specimens may be removed from the molds and tested. |
| 8.2.3.1 | *Polymer Concretes*—Delete this section. |
| 8.2.4 | *Polymer Concretes*—Replace with the following:<br><br>Measure the specimens before and after testing. Record the maximum loads achieved at specimen deflections of 10 and 15 percent. At 15 percent deflection, remove the load from the specimen. If the cube does not return to its original shape (± 0.02 in. (± 0.508mm) of the original measurement) without any fractures or deformations it shall fail. The average compressive strength at 10 percent strain shall be a minimum of 800 psi (5,000 kPa). The average compressive strength at 15 percent strain shall be a minimum of 1,100 psi (7,600 kPa). |