

# Test Summary

## Super Air Meter (SAM) Test (Modified ASTM C231)

### Test

AASHTO TP 118

### Objective

Measure effect of increasing pressurization cycles on air-entrained concrete as an indication of air void size

### Time to Complete Test

10 minutes

### Equipment

- Type B Pressure Meter (ASTM C231)
- Digital gauge
- SAM lid with 6 clamps

### Overview of Test Procedure

1. Sample concrete is poured into the unit weight bucket in three lifts and consolidated by rodding with 25 rods for each lift.
2. The lid of the SAM is placed on top of the bucket and clamped after making sure that the rim of both the components are clean.
3. The air is removed through the petcocks using a filling bowl. Instructions are displayed on the screen of the digital gauge.
4. 14.5 psi pressure is applied through the pump located on the top of the chamber. After that, pressure on the top chamber and bottom chamber is equalized by holding on the lever and striking the bucket with a mallet. The lever is held on until the screen displays OKAY.
5. Step 4 is repeated for 30 psi and 45 psi.
6. After the first set of three pressure tests, the petcocks are opened and air is forced out with a filling bowl as before. The three pressure tests are then repeated.
7. After completion, the SAM number and air volume are displayed on the screen. Concrete with SAM number of less than 0.20 is acceptable.

### For More Information

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