

IN-HOUSE PROCEDURE # _____

PROCEDURE FOR VERIFYING CYLINDER MOLDS

Item:

Cylinder Mold

Purpose:

This method provides instructions for verifying the critical dimensions, resistance to damage, and water tightness of cylinder molds.

Inspection Equipment Required:

1. Ruler readable to at least 1/16 inch or 1 mm
2. Square
3. ASTM # 57 or # 67 Crushed Stone
4. Tamping Rod (3/8 in. or 5/8 in. diameter)
5. Mallet (rubber or rawhide head)

Tolerance:

Equipment shall meet the dimensional tolerances specified in the applicable test method.

Procedure:

1. For single-use molds, obtain three single-use cylinder molds from each shipment.
2. Measure the inside diameter at the top of the mold by taking two measurements at right angles to each other to the nearest 1 mm. Average the two measurements.
3. Measure the height of the mold by taking two measurements 180° apart to the nearest 1 mm. Average the two measurements.
4. Check the perpendicularity of the top rim and bottom plane to the mold axis. Place the square across one end of the mold and hold securely in place. Measure the deviation from the side of the square at the top and bottom edges of the mold. If the difference is more than 1 mm in 100 mm (0.5°), the mold is unacceptable. Repeat for other end.
5. Fill the mold with dry, crushed stone meeting ASTM # 57 or # 67 grading. 4 x 8 molds shall be filled in two layers. Rod each layer 25 times with the 3/8 in. diameter tamping rod. 6 x 12 molds shall be filled in three layers. Rod each layer 25 times with the 5/8 inch diameter tamping rod. After each layer is rodded, tap the sides of the mold 10 – 15 times with a rubber or rawhide head mallet.
6. Empty the aggregate from the mold. Wipe lightly with a dry cloth. Examine the mold for physical damage (splits, punctures...).
7. Prepare the mold with the sealant to be used if required. Place the mold on a firm, flat surface and fill with room temperature water to a depth of 90-95 % of the mold height. Subject the mold to tapping and jarring typical with molding specimens. Allow the mold to stand for 1 hour. Record any leakage of water.