

PLASTIC MOLD (PM) COMPACTION DEVICE WITH ACCESSORIES



General:

The PM Compaction Device is used to prepare cylindrical test specimens with an approximate 2:1 height to diameter aspect ratio for used in a variety of mechanical property testing(ex. compressive strength, elastic modulus, tensile strength).

This practice is intended for chemically stabilized materials (ex. soil-cement, cement treated aggregate base, soil-lime).

The PM Compaction Device is manufactured in two sizes(76.2mm x 152.4mm or 3" x 6") and is intended for material passing the 9.5mm (3/8") Sieve. The (101.6mm x 203.2mm or 4" x 8") PM Compaction Device is intended for material passing the 19.0mm (3/4") Sieve. and meets all requirements of AASHTO PP 92.

The inside of the steel tapers slightly(.05" to .07") along a vertical direction since plastic molds do as well.

The appropriate PM Device is determined by the particle size distribution of the material being tested.

Practical uses of this practice include utilizing the PM Device to produce laboratory and field test specimens. This can provide interconnection between pavement layer thickness design testing, mixture design testing, and quality

assurance testing during construction. Utilizing the same method of compaction for laboratory and field test specimens will enable more direct comparison of as-built and design properties.

The greatest advantage the PM Device offers is the ability to interconnect pavement design, material mixture design, and construction activities for chemically stabilized materials. The PM Device can be utilized to determine material inputs for mechanistic-empirical pavement design, determine mixture proportions in the lab before construction, and can be utilized to verify design properties during construction for quality control and quality assurance purposes.

<u>Specimen Size</u>	<u>Approximate Dimensions</u>	<u>Weight</u>
3" x 6"	11" x 10" x 9"	17lbs
4" x 8"	11" x 10" x 11"	22lbs

PM Components Provided:

- A) 3" x 6" or 4" x 8" Steel Mold
- B) Locating Collar
- C) Aluminum Spacer Disk
- D) Plastic Mold
- E) Specimen Extruder Screw Jack With Frame
- F) Clamp
- G) Scarifying Tool

