

## 49 CFR 173.415 AUTHORIZED TYPE A PACKAGES

(a) Each shipper of a Specification 7A package must maintain on file for at least one year after the latest shipment, and provide to the DOT on request, a complete documentation of tests and an engineering evaluation or comparative data showing that the construction complies with the specifications (178.350 Specification Definitions, 173.410 General Design Requirements, 173.403 Definitions, and 173.465 Type A package test).

<u>GAUGE MODEL</u>	<u>CASE/DRAWING</u>	<u>PACKAGING DIMENSIONS, IN (MM)</u>	<u>LOADED WEIGHT, LBS (KG)</u>
MC Series (MC-1, MC-1DR, MC-2, MC-3) and 501/501 DR	Water resistant, high density, molded plastic. Includes wheelie kit retrofit Part No. 705684. Drawing #400407	30" W x 16" D x 16.5" H (762 x 406 x 419 mm)	88 lb (41.7 kg) Maximum
MC Series and 501/501DR	Water resistant, molded fiberglass Drawing #501503	30" W x 16" D x 16.5" H (762 x 406 x 419 mm)	88 lb (41.7 kg)
AC-2 and AC-2R	Water resistant, high density, molded plastic. Drawing #100332	20" W x 20" D x 20" H (508 x 508 x 508 mm)	63 lb (28.6 kg)
503 and MCM-2	Water resistant, high density, molded plastic. Drawing #700094	27" W x 12" D x 12" H (686 x 305 x 305 mm)	35.5 lb (16.6 kg)
MC-S-24	Water resistant, high density, molded plastic. Drawing #400754	50" W x 16.5" D x 27.8" H (1270 x 419 x 750 mm)	180 lb (81 kg)
503DR and MC-M	Water resistant, molded fiberglass. Drawing #700092	24.5" W x 13" D x 10.5" H (622 x 330 x 258 mm)	34 lb (8.1 kg)

### 49 CFR 173.465 Type A Packaging Tests

#### (a) Water Spray test

Prior to each of the following tests, the package was sprayed with water for a period of one hour at a rate that deposits two inches of water per hour on the package. Some entry of water into the package was observed but since the package is constructed of plastic, which is non-hydroscopic, no weakening or loss of integrity of the package was observed.

#### (b) Free Drop test

The loaded package was dropped from a height of 1.2 meters on its top corner to a concrete surface. The plastic case cracked, but the package remained intact and no loss of integrity was observed. The latches did not open.

#### (c) Compression or Stacking test

Five loaded cases, or the equivalent of 13 kilopascals (1.9 pounds per square inch) multiplied by the vertically projected area of the package, whichever is greater, were stacked on top of a sixth case for a period of 24 hours. No visible deformation was observed.

#### (d) Penetration test

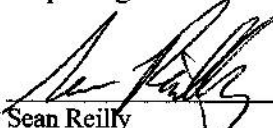
A brass rod 1.25 in diameter, with a hemispherical end and a mass of 13.2 lb was dropped from a height of one meter onto the top of the case. No cracking or other significant deformation occurred. The latches did not open.

#### (e) Vibration

Past experience demonstrates that the loaded shipping container withstands the effects of vibration that arise under the normal conditions of transport without any loss of integrity.

### Engineering Evaluation

The package meets the requirements of 49 CFR 173.415

  
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