

§ 178.354

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §178.352-6, see the List of CFR Sections Affected in the Finding Aids section of the printed volume and on GPO Access.

§ 178.354 Specification 6M; metal packaging.

§ 178.354-1 General requirements.

(a) Each package must meet the applicable requirements of §173.24 of this chapter.

(b) [Reserved]

[Amdt. 178-1, 33 FR 14935, Oct. 4, 1968. Redesignated by Amdt. 178-97, 55 FR 52716, Dec. 21, 1990]

§ 178.354-2 Rated capacity.

(a) Rated capacity as marked (see §178.354-5). Not less than 10 gallons nor more than 110 gallons for the outer steel drum. Not less than 1.24 L for the inner containment vessel.

(b) [Reserved]

[Amdt. 178-1, 33 FR 14935, Oct. 4, 1968. Redesignated by Amdt. 178-97, 55 FR 52716, Dec. 21, 1990, as amended at 63 FR 37462, July 10, 1998; 66 FR 45387, Aug. 28, 2001]

§ 178.354-3 General construction requirements.

(a) The outer shell must be of straight-sided steel, with welded body seams, and may be either a single sheet of steel, or may be fabricated by welding together two appropriate lengths of drums with each length to contain 3 swedged or rolled rolling hoops as prescribed for either of these specifications. A removable head for a packaging of 210 L (55 gallons) or larger volume must have one or more corrugations in the cover near the periphery. For a packaging exceeding 57 L (15 gallons) volume, the head must be crowned (convexed), not extending beyond the level of the chime, with a minimum convexity of 1 cm (3/8-inch).

(1) The maximum authorized gross weight, metal thickness, and minimum end insulation thickness for the marked volume is as follows:

Marked capacity		Maximum authorized gross weight		Minimum thickness of uncoated sheets and heads (gauge)	Minimum thickness of end insulation Inches	Cm
Gallons not over	Liters	Pounds	Kilograms			
15	57	160	73	20	1.88	4.7
30	114	480	219	18	3.75	9.5
55	210	640	292	16	3.75	9.5
110	420	640	292	16	3.75	9.5

(2) Each drum must have at least four 1.2 centimeter (0.5-inch) diameter vents near the top, each covered with a weatherproof tape or fusible plug; or equivalent device. A layer of porous refractory fiber may be placed behind the pressure-relief vent holes.

(b) Inner containment vessel must conform to specification 2R or equivalent (cast iron or brass are prohibited), with maximum usable inside diameter of 13.3 cm (5.25 inches), minimum usable inside diameter of 10 cm (4 inches), and minimum height of 15 cm (6 inches).

(c) Inner containment vessel must be fixed within the outer shell by one of the following types of solid centering media, with the sides of the inner ves-

sel protected by at least 9.5 cm (3.75 inches) of insulation media, and the ends with at least the thickness as prescribed in paragraph (a)(1) of this section.

(1) Machined discs and rings made of solid industrial cane fiberboard having a density of at least 0.24 g/cc (15 pounds per cubic foot) fitted such that the radial clearances between the fiberboard, inner vessel, and shell do not exceed 6 mm (1/4-inch); or

(2) Hardwood or plywood at least 1.2 centimeter (1/2-inch) thick, having a density of at least 0.45 g/cc (28 pounds per cubic foot). There must be no gap or direct heat path from the shell to the inner vessel.