

§ 178.915

49 CFR Ch. I (10–1–10 Edition)

(viii) The maximum permissible gross mass or for flexible Large Packagings, the maximum net mass, in kg.

(2) The following are examples of symbols and required markings:

(i) For a steel Large Packaging suitable for stacking; stacking load: 2,500 kg; maximum gross mass: 1,000 kg.



50A/X/05 05/USA/M9399/2500/1000

(ii) For a plastic Large Packaging not suitable for stacking; maximum gross mass: 800 kg.



50H/Y/11 04/USA/M9399/0/800

(iii) For a Flexible Large Packaging not suitable for stacking; maximum gross mass: 500 kg.



51H/Z/06 04/USA/+ZT1235/0/500

(b) [Reserved]

[75 FR 5397, Feb. 2, 2010, as amended at 75 FR 60339, Sept. 30, 2010]

§ 178.915 General Large Packaging standards.

(a) Each Large Packaging must be resistant to, or protected from, deterioration due to exposure to the external environment. Large Packagings intended for solid hazardous materials must be sift-proof and water-resistant.

(b) All service equipment must be positioned or protected to minimize potential loss of contents resulting from damage during Large Packaging handling and transportation.

(c) Each Large Packaging, including attachments and service and structural equipment, must be designed to withstand, without loss of hazardous materials, the internal pressure of the contents and the stresses of normal handling and transport. A Large Packaging intended for stacking must be designed for stacking. Any lifting or securing features of a Large Packaging must be sufficient strength to withstand the normal conditions of handling and transportation without gross distortion or failure and must be positioned so as to cause no undue stress in any part of the Large Packaging.

(d) A Large Packaging consisting of packagings within a framework must

be so constructed that the packaging is not damaged by the framework and is retained within the framework at all times.

(e) Large Packaging design types must be constructed in such a way as to be bottom-lifted or top-lifted as specified in §§ 178.970 and 178.975.

[75 FR 5397, Feb. 2, 2010, as amended at 75 FR 60339, Sept. 30, 2010]

§ 178.920 Standards for metal Large Packagings.

(a) The provisions in this section apply to metal Large Packagings intended to contain liquids and solids. Metal Large Packaging types are designated:

- (1) 50A steel
- (2) 50B aluminum
- (3) 50N metal (other than steel or aluminum)

(b) Each Large Packaging must be made of suitable ductile metal materials. Welds must be made so as to maintain design type integrity of the receptacle under conditions normally incident to transportation. Low-temperature performance must be taken into account when appropriate.

(c) The use of dissimilar metals must not result in deterioration that could affect the integrity of the Large Packaging.

(d) Metal Large Packagings may not have a volumetric capacity greater than 3,000 L (793 gallons) and not less than 450 L (119 gallons).

§ 178.925 Standards for rigid plastic Large Packagings.

(a) The provisions in this section apply to rigid plastic Large Packagings intended to contain liquids and solids. Rigid plastic Large Packaging types are designated:

- (1) 50H rigid plastics.
- (2) [Reserved]

(b) A rigid plastic Large Packaging must be manufactured from plastic material of known specifications and be of a strength relative to its capacity and to the service it is required to perform. In addition to conformance to § 173.24 of this subchapter, plastic materials must be resistant to aging and to degradation caused by ultraviolet radiation.

(1) If protection against ultraviolet radiation is necessary, it must be provided by the addition of a pigment or inhibitor such as carbon black to plastic materials. These additives must be compatible with the contents and remain effective throughout the life of the plastic Large Packaging body. Where use is made of carbon black, pigments or inhibitors, other than those used in the manufacture of the tested design type, retesting may be omitted if changes in the carbon black content, the pigment content or the inhibitor content do not adversely affect the physical properties of the material of construction.

(2) Additives may be included in the composition of the plastic material to improve the resistance to aging or to serve other purposes, provided they do not adversely affect the physical or chemical properties of the material of construction.

(3) No used material other than production residues or regrind from the same manufacturing process may be used in the manufacture of rigid plastic Large Packagings.

(c) Rigid plastic Large Packagings:

- (1) May not have a volumetric capacity greater than 3,000 L (793 gallons); and
- (2) May not have a volumetric capacity less than 450 L (119 gallons).

§ 178.930 Standards for fiberboard Large Packagings.

(a) The provisions in this section apply to fiberboard Large Packagings intended to contain solids. Rigid fiberboard Large Packaging types are designated:

- (1) 50G fiberboard
- (2) [Reserved]

(b) *Construction requirements for fiberboard Large Packagings.* (1) Fiberboard Large Packagings must be constructed of strong, solid or double-faced corrugated fiberboard (single or multiwall) that is appropriate to the capacity of the Large Packagings and to their intended use. Water resistance of the outer surface must be such that the increase in mass, as determined in a test carried out over a period of 30 minutes by the Cobb method of determining water absorption, is not greater than 155 grams per square meter (0.0316