

test contents; test descriptions and results (including drop heights, hydrostatic pressures, tear propagation length, etc.). Each test report must be signed with the name of the person conducting the test, and name of the person responsible for testing.

(2) The person who certifies each IBC must make all records of design qualification tests and periodic design requalification tests available for inspection by a representative of the Department upon request.

[Amdt. 178-103, 59 FR 38074, July 26, 1994, as amended by Amdt. 178-108, 60 FR 40038, Aug. 4, 1995; 66 FR 45386, Aug. 28, 2001; 66 FR 33452, June 21, 2001]

§ 178.802 Preparation of fiberboard IBCs for testing.

(a) Fiberboard IBCs and composite IBCs with fiberboard outer packagings must be conditioned for at least 24 hours in an atmosphere maintained:

(1) At 50 percent ± 2 percent relative humidity, and at a temperature of 23° ± 2 °C (73 °F ± 4 °F); or

(2) At 65 percent ± 2 percent relative humidity, and at a temperature of 20° ±

2 °C (68 °F ± 4 °F), or 27 °C ± 2 °C (81 °F ± 4 °F).

(b) Average values for temperature and humidity must fall within the limits in paragraph (a) of this section. Short-term fluctuations and measurement limitations may cause individual measurements to vary by up to ± 5 percent relative humidity without significant impairment of test reproducibility.

(c) For purposes of periodic design requalification only, fiberboard IBCs or composite IBCs with fiberboard outer packagings may be at ambient conditions.

[Amdt. 178-103, 59 FR 38074, July 26, 1994, as amended at 66 FR 45386, Aug. 28, 2001]

§ 178.803 Testing and certification of IBCs.

Tests required for the certification of each IBC design type are specified in the following table. The letter X indicates that one IBC (except where noted) of each design type must be subjected to the tests in the order presented:

Performance test	IBC type					
	Metal IBCs	Rigid plastic IBCs	Composite IBCs	Fiber-board IBCs	Wooden IBCs	Flexible IBCs
Vibration	⁶ X	⁶ X	⁶ X	⁶ X	⁶ X	^{1,5} X
Bottom lift	² X	X	X	X	X	
Top lift	² X	² X	² X			^{2,5} X
Stacking	⁷ X	⁷ X	⁷ X	⁷ X	⁷ X	⁵ X
Leakproofness	³ X	³ X	³ X			
Hydrostatic	³ X	³ X	³ X			
Drop	⁴ X	⁴ X	⁴ X	⁴ X	⁴ X	⁵ X
Topple						⁵ X
Righting						^{2,5} X
Tear						⁵ X

¹ Flexible IBCs must be capable of withstanding the vibration test.
² This test must be performed only if IBCs are designed to be handled this way. For metal IBCs, at least one of the bottom lift or top lift tests must be performed.
³ The leakproofness and hydrostatic pressure tests are required only for IBCs intended to contain liquids or intended to contain solids loaded or discharged under pressure.
⁴ Another IBC of the same design type may be used for the drop test set forth in § 178.810 of this subchapter.
⁵ Another different flexible IBC of the same design type may be used for each test.
⁶ The vibration test may be performed in another order for IBCs manufactured and tested under provisions of an exemption before October 1, 1994 and for non-DOT specification portable tanks tested before October 1, 1994, intended for export.
⁷ This test must be performed only if the IBC is designed to be stacked.

[Amdt. 178-108, 60 FR 40039, Aug. 4, 1995, as amended at 64 FR 51919, Sept. 27, 1999; 66 FR 45386, 45390, Aug. 28, 2001]

§ 178.810 Drop test.

(a) *General.* The drop test must be conducted for the qualification of all IBC design types and performed periodically as specified in § 178.801(e) of this subpart.

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(b) *Special preparation for the drop test.*
 (1) Metal, rigid plastic, and composite IBCs intended to contain solids must be filled to not less than 95 percent of their capacity, or if intended to contain liquids, to not less than 98 percent