(2) For fiberboard and wooden IBCs, there may be no loss of contents and no permanent deformation, which renders the whole IBC, including the base pallet, unsafe for transportation.

(3) For flexible IBCs, there may be no deterioration, which renders the IBC unsafe for transportation, and no loss of contents.

(4) For the dynamic compression test, a container passes the test if, after application of the required load, there is no permanent deformation to the IBC, which renders the whole IBC, including the base pallet, unsafe for transportation; in no case may the maximum deflection exceed one inch.

§ 178.816 Topple test.

(a) General. The topple test must be conducted for the qualification of all flexible IBC design types.

(b) Special preparation for the topple test. The flexible IBC must be filled to not less than 95 percent of its capacity and to its maximum net mass, with the load being evenly distributed.

(c) Test method. A flexible IBC must be toppled onto any part of its top upon a rigid, non-resilient, smooth, flat, and horizontal surface.

(d) Topple height. For all flexible IBCs, the topple height is specified as follows:

(1) Packing Group I: 1.8 m (5.9 feet).
(2) Packing Group II: 1.2 m (3.9 feet).
(3) Packing Group III: 0.8 m (2.6 feet).

(e) Criteria for passing the test. For all flexible IBCs, there may be no loss of contents. A slight discharge (e.g., from closures or stitch holes) upon impact is not considered to be a failure, provided no further leakage occurs.

§ 178.818 Tear test.

(a) General. The tear test must be conducted for the qualification of all flexible IBC design types.

(b) Special preparation for the tear test. The flexible IBC must be filled to not less than 95 percent of its capacity and to its maximum net mass, the load being evenly distributed.

(c) Test method. The flexible IBC, lying on its side, must be lifted at a speed of at least 0.1 m/second (0.33 ft/s) to an upright position, clear of the floor, by one lifting device, or by two lifting devices when four are provided.

(d) Criterion for passing the test. For all flexible IBCs, there may be no damage to the IBC or its lifting devices which renders the IBC unsafe for transportation or handling.

§ 178.819 Vibration test.

(a) General. The vibration test must be conducted for the qualification of all rigid IBC design types. Flexible IBC design types must be capable of withstanding the vibration test.

(b) Test method. (1) A sample IBC, selected at random, must be filled and closed as for shipment. IBCs intended for liquids may be tested using water