

| TEST LOADINGS AND APPLIED FORCES | TEST PROCEDURES |
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INTERNAL LOADING:

A uniformly distributed load such that the combined weight of container and test load is equal to 1.25 R.

(ii) Lifting from grapple arm positions:

The container shall be placed on pads in the same horizontal plane, one under each grapple arm position. These pads shall be of the same sizes as the lifting area of the grapple arms intended to be used.

EXTERNALLY APPLIED FORCES:

Such as to lift the combined weight of 1.25 R in the manner prescribed (under the heading TEST PROCEDURES).

(iii) Other Methods

Where containers are designed to be lifted in the loaded condition by any method not mentioned in (A) or (B) (i) and (ii) they shall also be tested with the INTERNAL LOADING AND EXTERNALLY APPLIED FORCES representative of the acceleration conditions appropriate to that method.

2. STACKING

1. For conditions of international transport where the maximum vertical acceleration forces vary significantly from 1.8 g and when the container is reliably and effectively limited to such conditions of transport, the stacking load may be varied by the appropriate ratio of acceleration forces.

2. On successful completion of this test the container may be rated for the allowable superimposed static stacking weight which should be indicated on the Safety Approval Plate, against the heading „allowable stacking weight for 1.8 g (kilogrammes and lbs)“.

INTERNAL LOADING:

A uniformly distributed load such that the combined weight of container and test load is equal to **1.8 R**.

The container, having the prescribed INTERNAL LOADING, shall be placed on four level pads which are in turn supported on a rigid horizontal surface, one under each bottom corner fitting or equivalent corner structure. The pads shall be centralized under the fittings and shall be of approximately the same plan dimensions as the fittings.

EXTERNALLY APPLIED FORCES:

Such as to subject each of the four top corner fittings to a vertical downward force equal to $\frac{1}{4}XL$ the allowable superimposed static stacking weight.

Each EXTERNALLY APPLIED FORCE shall be applied to each of the corner fittings through a corresponding test corner fitting or through a pad of the same plan dimensions. The test corner fittings or pad shall be offset with respect to the top corner fitting of the container by 25 mm (1 in.) laterally and 38 mm (1½ in.) longitudinally.

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3. CONCENTRATED LOADS

(a) ON ROOF

INTERNAL LOADING:

None.

EXTERNALLY APPLIED FORCES:

A concentrated load of 300 kg (660 lb) uniformly distributed over an area of 600 mm X 300 mm (24 in. X 12 in.).

The EXTERNALLY APPLIED FORCES Shall be applied vertically downwards to the outer surface of the weakest area of the roof of the container.

3. CONCENTRATED LOADS (b) ON FLOOR

INTERNAL LOADING:

Two concentrated loads each of 2,730 kg (6,000 lb.) and each applied to the container floor through a contact area of 142 cm² (22 sq. in.).

The test should be made with the container resting on four level supports under its four bottom corners in such a manner that the base structure of the container is free to deflect.

A testing device loaded to a weight of 5,460 kilogrammes (12,000 lbs.) that is 2,730 kg (6,000 lbs.) on each of two surfaces having, when loaded, a total contact area of 284 cm² (44 sq. in.) that is 142 cm² (22 sq. in.) on each surface, the surface width being 180 mm (7 in.) spaced 760 mm (30 in.) apart, centre to centre, should be manoeuvred over the entire floor area of the container.

EXTERNALLY APPLIED FORCES:

None.

4. TRANSVERSE RACKING

INTERNAL LOADING:

None.

The container in tare condition shall be placed on four level supports one under each bottom corner and shall be restrained against lateral and vertical movement by means of anchor devices so arranged that the lateral restraint is provided only at the bottom corners diagonally opposite to those at which the forces are applied.

EXTERNALLY APPLIED FORCES:

Such as to rack the end structures of the containers sideways. The forces shall be equal to those for which the container was designed.

The EXTERNALLY APPLIED FORCE shall be applied either separately or simultaneously to each of the top corner fittings on one side of the container in lines parallel both to the base and to the planes of the ends of the container. The forces shall be applied first towards and then away from the top corner fittings. In the case of containers in which each end is symmetrical about its own vertical centreline, one side only need be tested, but both sides of containers with asymmetric ends shall be tested.