

TEST LOADINGS AND  
APPLIED FORCES

## TEST PROCEDURES

## 5. LONGITUDINAL RESTRAINT (STATIC TEST)

When designing and constructing containers, it must be borne in mind that containers, when oaried by inland modes of transport may sustain accelerations of 2 g applied horizontally in a longitudinal direction.

**INTERNAL LOADING:**

A uniformly distributed load, such that the combined weight of a container and test load is equal to the maximum operating gross weight or rating, R.

The container having the prescribed INTERNAL LOADING shall be restrained longitudinally by securing the two bottom corner fittings or equivalent corner structures at one end to suitable anchor points.

**EXTERNALLY APPLIED FORCES:**

Such as to subject each side of the container to longitudinal compressive and tensile forces of magnitude R, that is, a combined force of 2R on the base of the container as a whole.

The EXTERNALLY APPLIED FORCES shall be applied first towards and then away from the anchor points. Each side of the container shall be tested.

## 6. END WALLS

The end walls should be capable of withstanding a load of not less than 0.4 times the maximum permissible payload. If, however, the end walls are designed to withstand a load of less or greater than 0.4 times the maximum permissible payload such a strength factor shall be indicated on the Safety Approval Plate in accordance with Annex I, Regulation 1.

**INTERNAL LOADING:**

Such 'as to subject the inside of an end wall to a uniformly distributed load of 0.4P or such other load for which the container may be designed.

The prescribed INTERNAL LOADING shall be applied as follows: Both ends of a container shall be tested except where the ends are identical only one end need be tested. The end walls of containers which do not have open sides or side doors may be tested separately or simultaneously.

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The end walls of containers which do have open sides or side doors should be tested separately.

When the ends are tested separately the reactions to the forces applied to the end wall shall be confined to the base structure of the container.

**EXTERNALLY APPLIED FORCES:**

None.

## 7. SIDE WALLS

The side walls should be capable of withstanding a load of not less than 0.6 times the maximum permissible payload. If, however, the side walls are designed to withstand a load of less or greater than 0.6 times the maximum permissible payload, such a strength factor should be indicated on the Safety Approval Plate in accordance with Annex I, Regulation 1.

**INTERNAL LOADING:**

Such as to subject the inside of a side wall to a uniformly distributed load of 0.6P or such other load for which the container may be designed.

The prescribed INTERNAL LOADING shall be applied as follows: Both sides of a container shall be tested except where the sides are identical only one side need be tested. Side walls shall be tested separately and the reactions to the internal loading shall be confined to the corner fittings or equivalent corner structures. Open topped containers shall be tested in the condition in which they are designed to be operated, for example, with removable top members in position.

**EXTERNALLY APPLIED FORCES:**

None.