

**COMMITTEE OF EXPERTS ON THE TRANSPORT OF  
DANGEROUS GOODS AND ON THE GLOBALLY  
HARMONIZED SYSTEM OF CLASSIFICATION  
AND LABELLING OF CHEMICALS**

Sub-Committee of Experts on the  
Transport of Dangerous Goods

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Item 2 of the provisional agenda

**PERFORMANCE OF PACKAGINGS, INCLUDING IBCs**

Puncture test for infectious substance packagings - Chapter 6.3 of the Model Regulations

Transmitted by the expert from the United Kingdom

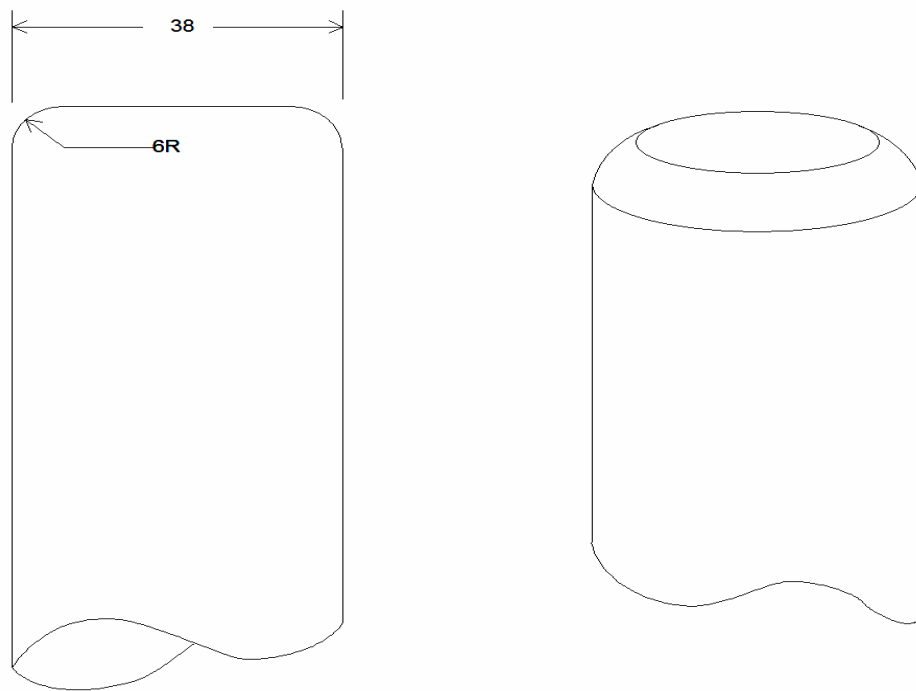
**1. Introduction**

During the recent meeting of the ICAO Dangerous Goods Panel in Memphis the delegate from the People's Republic of China raised the question regarding the shape of the steel rod that should be used in the puncture test in Chapter 6.3 of the Model Regulations. This matter has been raised in the past and the wording has been amended from time to time to clarify the meaning. There is still, however some confusion remaining. The expert from the United Kingdom undertook to clarify the requirement in the Model Regulations and considers an illustration might help. The proposal below is to introduce such an illustration. There are no changes to the text.

**2. Proposal**

6.3.5.4.1 (15<sup>th</sup>) Packagings with a gross mass of 7 kg or less shall be subjected to the tests described in (a) below and packagings with a gross mass exceeding 7 kg to the tests in (b) below.

- (a) Samples shall be placed on a level hard surface. A cylindrical steel rod with a mass of at least 7 kg, a diameter of 38 mm and the impact end edges a radius not exceeding 6 mm (see Fig 1 below), shall be dropped in a vertical free fall from a height of 1 m, measured from the impact end to the impact surface of the sample. One sample shall be placed on its base. A second sample shall be placed in an orientation perpendicular to that used for the first. In each instance the steel rod shall be aimed to impact the primary receptacle. Following each impact, penetration of the secondary packaging is acceptable, provided that there is no leakage from the primary receptacle(s);



Detail of end of 7KG bar (dimensions in millimetres)

Fig 1

- (b) Samples shall be dropped on to the end of a cylindrical steel rod. The rod shall be set vertically in a level hard surface. It shall have a diameter of 38 mm and the edges of the upper end a radius not exceeding 6 mm. The rod shall protrude from the surface a distance at least equal to that between the primary receptacle(s) and the outer surface of the outer packaging with a minimum of 200 mm. One sample shall be dropped in a vertical free fall from a height of 1 m, measured from the top of the steel rod. A second sample shall be dropped from the same height in an orientation perpendicular to that used for the first. In each instance the packaging shall be so orientated that the steel rod would penetrate the primary receptacle(s). Following each impact, there shall be no leakage from the primary receptacle(s).
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