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ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 953

DRIFT EXPANDING TEST

ON LIGHT METAL AND LIGHT METAL ALLOY TUBES

1st EDITION
January 1969

ISO 8493

Printed in Switzerland

Also issued in French and Russian. Copies to be obtained through the national standards organizations.

BRIEF HISTORY

The ISO Recommendation R 953, *Drift expanding test on light metal and light metal alloy tubes*, was drawn up by Technical Committee ISO/TC 79, *Light metals and their alloys*, the Secretariat of which is held by the Association Française de Normalisation (AFNOR).

Work on this question led, in 1966, to the adoption of a Draft ISO Recommendation.

In March 1967, this Draft ISO Recommendation (No. 1133) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Belgium	Israel	Switzerland
Canada	Italy	Thailand
Chile	Japan	Turkey
Czechoslovakia	Netherlands	U.A.R.
France	New Zealand	United Kingdom
Germany	Norway	U.S.A.
Greece	Poland	U.S.S.R.
Hungary	South Africa, Rep. of	Yugoslavia
India	Sweden	

No Member Body opposed the approval of the Draft.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in January 1969, to accept it as an ISO RECOMMENDATION.

ISO Recommendation R 953 January 1969

DRIFT EXPANDING TEST

ON LIGHT METAL AND LIGHT METAL ALLOY TUBES

1. SCOPE

This ISO Recommendation relates to the drift expanding test on light metal and light metal alloy tubes, having an external diameter not greater than 100 mm (4 in) and a wall thickness not greater than 10 mm (0.4 in).

NOTE. – This test is not normally used for magnesium and magnesium alloy tubes.

2. PRINCIPLE OF TEST

The test involves expanding, by means of a conical mandrel, the end of a tube or the end of a test piece consisting of a piece of tube.

The expansion is continued until the maximum external diameter of the expanded portion of the tube has reached the value laid down in the specification for the material.

The test is carried out at ambient temperature unless otherwise specified.

3. SYMBOLS AND DESIGNATIONS

Reference number	Symbol	Designation
1	D	External diameter of tube or test piece
2	a	Thickness of wall of tube or test piece
3	L	Length of test piece
4	α	Conical angle of mandrel
5	x	Maximum external diameter of end of expanded tube

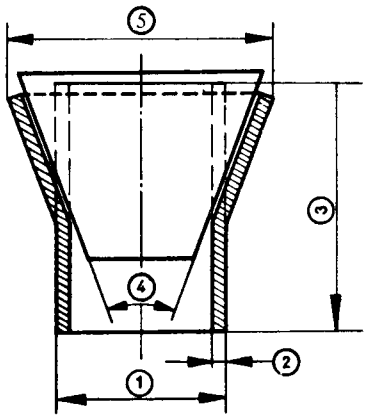

FIGURE – **Drift expanding test**