

**MAURITIAN
STANDARD**

MS 190-1:2015

(OIML R 35-1, Edition 2007
Including Amendment 2014)

First edition
2015-04-04

Material measures of length for general
use - Part 1:
Metrological and technical requirements

ICS 17.040.30



**Mauritius Standards Bureau
Moka**

National foreword

This Mauritian Standard is identical with the International Organization of Legal Metrology Recommendations, **OIML R 35-1**, Edition 2007 (E) Including Amendment 2014 - *Material measures of length for general use. Part 1: Metrological and technical requirements*. It was adopted by the Mauritius Standards Bureau on the recommendation of the **Metrology Standards Committee** through its Subcommittee on Dimensional Measurement Equipment and approval of the Standards Council on March 2015. It was notified in the Government Gazette on **4 April 2015**.*

For the purposes of this standard the following change should be made:

- wherever the word '*Recommendation*' appears, referring to this standard, it should be read as '*Mauritian Standard*'.
- Clause 1.5 of Scope is read as '*1.5 This Mauritian standard does not address safety aspects, for example the use of material measures with electronic devices in hazardous areas.*' "

* General Notice No. 622 of 2015



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Amendment (2014) to OIML R 35-1 Edition 2007
Material measures of length for general use.
Part 1: Metrological and technical requirements

Section II, Metrological requirements, 4.4.1 Temperature, is amended to read:

The temperature limits shall be the reference temperature ± 8 °C or the temperature indicated on the measure ± 8 °C. The temperature limits of ± 8 °C shall be disregarded if there is a thermal expansion coefficient marked on the measure or if the measure carries temperature correction information. In this way, for each measurement taken, the change of length at the working temperature can be calculated and confirmed.

Section III, Technical requirements, 6.2:

The words “.....plus all other errors.....” should be deleted for the above reasons and because it would contradict 4.4.1.

Contents

<i>Foreword</i>		3
SECTION I – GENERAL		
1	Scope	4
2	Terminology	4
3	Unit of measurement.....	5
SECTION II – METROLOGICAL REQUIREMENTS		
4	Accuracy classes and maximum permissible errors.....	6
SECTION III – TECHNICAL REQUIREMENTS		
5	Nominal length	8
6	Materials	9
7	Construction.....	9
8	Scale.....	11
9	Numbering	12
10	Inscriptions	12
11	Indicating devices	13
SECTION IV – METROLOGICAL CONTROLS		
12	Metrological controls.....	14
13	Verification (or control) marks	14
SECTION V – TECHNICAL REQUIREMENTS PARTICULAR TO VARIOUS TYPES OF MEASURES		
14	Semi-rigid steel tape measures in a case.....	16
15	Semi-rigid steel tape measures with digital readout	18
16	One-piece rigid or semi-rigid measures	20
17	Flexible tape measures made of fiberglass and plastics or other suitable non-metallic materials, not in a case.....	21
18	Folding measures made of metal or other materials	22
19	Telescopic measures made of metal or other materials	23
20	Telescopic measures made of metal or other materials with digital readout	23
21	Flexible steel tape measures with winding device not designed for measuring lengths greater than their nominal length by repeated use of the same tape.....	25
22	Flexible steel tape measures with tensioning weight or sinker	27
23	Flexible steel tape measures with tensioning weight or sinker equipped with electronic sensing	29
24	Flexible steel surveyor's tapes designed for measuring lengths greater than their nominal length by repeated use of the same tape.....	30
25	Flexible tape measures made of made of fibreglass and plastics or other suitable non-metallic materials	31
SECTION VI – TEST REQUIREMENTS		
26	Test requirements for material measures of length.....	33
27	Test requirements for material measures fitted with ancillary electronic devices	33
<i>Bibliography</i>		36

Foreword

The International Organization of Legal Metrology (OIML) is a worldwide, intergovernmental organization whose primary aim is to harmonize the regulations and metrological controls applied by the national metrological services, or related organizations, of its Member States. The main categories of OIML publications are:

- **International Recommendations (OIML R)**, which are model regulations that establish the metrological characteristics required of certain measuring instruments and which specify methods and equipment for checking their conformity. OIML Member States shall implement these Recommendations to the greatest possible extent;
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- **International Guides (OIML G)**, which are also informative in nature and which are intended to give guidelines for the application of certain requirements to legal metrology; and
- **International Basic Publications (OIML B)**, which define the operating rules of the various OIML structures and systems.

OIML Draft Recommendations, Documents and Guides are developed by Technical Committees or Subcommittees which comprise representatives from the Member States. Certain international and regional institutions also participate on a consultation basis. Cooperative agreements have been established between the OIML and certain institutions, such as ISO and the IEC, with the objective of avoiding contradictory requirements. Consequently, manufacturers and users of measuring instruments, test laboratories, etc. may simultaneously apply OIML publications and those of other institutions.

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Additionally, the OIML publishes or participates in the publication of **Vocabularies (OIML V)** and periodically commissions legal metrology experts to write **Expert Reports (OIML E)**. Expert Reports are intended to provide information and advice, and are written solely from the viewpoint of their author, without the involvement of a Technical Committee or Subcommittee, nor that of the OIML. Thus, they do not necessarily represent the views of the OIML.

This publication - reference OIML R 35-1, Edition 2007 (E) - was developed by the OIML Technical Subcommittee TC 7 *Measuring instruments for length and associated quantities*. It was approved for final publication by the International Committee of Legal Metrology in 2007 and will be submitted to the International Conference of Legal Metrology in 2008 for formal sanction.

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Material measures of length for general use

SECTION I – GENERAL

1 Scope

1.1 This Recommendation applies to material measures of length for general use, hereinafter called “measures”.

1.2 This Recommendation specifies the technical, metrological and administrative conditions which are mandatory for these measures.

1.3 This Recommendation includes the requirements for digital readouts on the cases of tapes, whether electronic or mechanical.

1.4 This Recommendation does not apply to high-precision measures used by industry in the field of mechanics or in geodesy (for example: gauge blocks, geodetic wires, precision line measures).

1.5 This Recommendation does not address safety aspects, for example the use of material measures with electronic devices in hazardous areas. Guidelines for these aspects should be followed in accordance with the applicable international, regional or national regulations, which are often detailed in standards.

2 Terminology

2.1 Metrological characteristics

2.1.1 Material measure of length

Material measure provided with scale marks, the distances between which are indicated in legal units of length.

2.1.2 Nominal length

Length by which the measure is designated.

2.1.3 Principal scale marks

Two scale marks, the distance between which represents the nominal length of the measure.

2.1.4 Scale

Set of all the scale marks and associated numbering.

2.1.5 Scale interval

Value expressed in units of length of:

- the difference between the values corresponding to two consecutive scale marks, for analog indication; or
- the difference between two consecutive indicated values, for digital indication.