# International Standard 4592

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# Plastics — Film and sheeting — Determination of length and width

*Plastiques — Film et feuille — Détermination de la longueur et de la largeur*

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 4592 was developed by Technical Committee ISO/TC 61, *Plastics,* and was circulated to the member bodies in May 1977.

It has been approved by the member bodies of the following countries:

| | | |
|---|---|---|
| Australia | Hungary | Romania |
| Austria | India | South Africa, Rep. of |
| Belgium | Iran | Spain |
| Brazil | Ireland | Sweden |
| Bulgaria | Israel | Switzerland |
| Canada | Japan | Turkey |
| Chile | Netherlands | United Kingdom |
| Czechoslovakia | New Zealand | USA |
| Finland | Peru | USSR |
| France | Poland | |
| Germany, F. R. | Portugal | |

No member body expressed disapproval of the document.

This International Standard has also been approved by the International Union of Pure and Applied Chemistry (IUPAC).





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# Plastics — Film and sheeting — Determination of length and width

## Section one : Reference method for determination of length of a roll

### 1 Scope and field of application

Section one of this International Standard specifies a method for the determination of the "free" length of a roll of plastics film or sheeting.

This method is intended for use with rolls of length up to 100 m as a reference method with which other methods may be checked. Any other method of determining the length may be used, provided that it gives the same results as the specified method. If automatic measuring devices are used, they shall be checked by measurements made by the specified procedure for each type of plastics film and sheeting.

Because the method is laborious it is permissible, in the case of long rolls, to check the other methods of measurement referred to above on an approximately 100 m length of film and sheeting measured by the specified method.

### 2 Apparatus

**2.1 Sharp knife** or **razor.**

**2.2 Metallic scale** or **profile,** longer than the width of the roll to be measured.

**2.3 Flat surface,** preferably at least 10 m long and at least as wide as the roll to be tested. The surface shall be marked off in 1 m lengths along each longitudinal edge, at least one of these lengths at one end of the surface being subdivided into 0,1 m divisions.

**2.4 Device,** over which the unrolled sheeting may be passed without stretching, for example a roller, at least as wide as the film or sheeting width, mounted 50 cm in front of and about 30 cm above the flat surface.

### 3 Procedure

**3.1** Unroll the film or sheeting into lap form in such a way that the length of each lap does not exceed 5 m and so that there are not more than twenty laps directly one above the other. Allow the material to remain in this lap form for at least 1 h before the determination of length is carried out.

**3.2** Take the uppermost cut end of the pile of material and pull it along the flat surface (2.3), taking care to ensure that only the minimum of stretch is applied to the material; one method of achieving this is to pass the film or sheeting over a roller (see 2.4) mounted so as to rotate freely on ball bearings approximately 30 cm above the surface on which the material is to be measured. Make the cut end coincide with the zero mark on the surface, trimming the end if necessary by means of the sharp knife or razor (2.1) and metallic scale or profile (2.2) so that it is at right angles to the longitudinal direction of the roll, such trimming being confined to a minimum. At the opposite end of the surface, mark each edge of the material by some suitable method to coincide with a known division of length.

**3.3** Move the material along the surface so that the marked portions coincide with the zero mark and repeat the process of marking the edges of the opposite end.

**3.4** Repeat the process until the whole of the roll has been passed over the surface and measured, trimming the last cut end, if necessary, in the same manner as the first cut end.

**3.5** Measure the length to the nearest 0,1 m. Report the sum of all the measurements of length as the length of the roll, in metres, to the nearest 0,1 m.

### 4 Test report

The test report shall include the following particulars :

a) reference to this International Standard;

b) full identification of the tested roll;

c) length of the roll, in metres, to the nearest 0,1 m.