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# INTERNATIONAL STANDARD



# 2313

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## **Textile fabrics — Determination of the recovery from creasing of a horizontally folded specimen by measuring the angle of recovery**

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## FOREWORD

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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 2313 was drawn up by Technical Committee ISO/TC 38, *Textiles*.

It was approved in October 1971 by the Member Bodies of the following countries :

Australia	India	Romania
Belgium	Iran	South Africa, Rep. of
Brazil	Ireland	Spain
Canada	Japan	Sweden
Denmark	Netherlands	Thailand
Egypt, Arab Rep. of	New Zealand	Turkey
Finland	Norway	United Kingdom
Germany	Poland	U.S.A.
Hungary	Portugal	U.S.S.R.

The Member Bodies of the following countries expressed disapproval of the document on technical grounds :

France  
Switzerland

# Textile fabrics — Determination of the recovery from creasing of a horizontally folded specimen by measuring the angle of recovery

## 0 INTRODUCTION

Creases in textile fabrics diminish at varying rates on the removal of the creasing forces. The magnitude of the crease recovery angle is an indication of the ability of a fabric to recover from accidental creasing.

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a method for determining the angle of recovery of fabrics from creasing. The results obtained by this method for textile fabrics of very different kinds cannot be compared directly.

Attention is drawn to the fact that for some types of fabrics, the limpness, thickness and tendency to curl of the specimen may give rise to very ill-defined crease recovery angles, and therefore an unacceptable lack of precision in making measurements. Many wool and wool mixture fabrics come under this heading.

## 2 REFERENCE

ISO/R 139, *Standard atmospheres for conditioning and testing textiles*.

## 3 DEFINITION

**crease recovery angle** : The angle formed between the two limbs of a strip of fabric previously folded under prescribed conditions, at a specified time after removal of the creasing load.

## 4 PRINCIPLE

A rectangular specimen of prescribed dimensions is folded by means of a suitable device and maintained in this state for a specified short time under a specified load. This creasing load is removed, the specimen allowed to recover for a specified time, and the crease recovery angle then measured.

## 5 APPARATUS

### 5.1 Apparatus for loading the specimen (press)

This apparatus consists of the following parts :

- a) A press to apply a total load of 10 N<sup>1)</sup> on an area of 15 mm X 15 mm of the folded specimen.

It shall be possible to complete the removal of the load within a period of less than 1 s.

- b) Two flat pressure plates which remain parallel to one another throughout the period of the application of the load to the specimen. On the lower plate an area of 15 mm X 20 mm shall be marked or other provisions made to facilitate correct placement of the specimen.

An example of a loading apparatus is shown in Figure 1.

### 5.2 Instrument for measuring the crease recovery angle

The instrument consists of the following parts :

- a) A circular scale divided in degrees and correct to  $\pm 0.5^\circ$ . It shall be possible to read the angle correct to the nearest degree without parallax error.

- b) A specimen grip to hold the specimen in such a manner that the fold lies in a horizontal line through the centre of the circular scale. The edge of the grip shall lie 2 mm from the centre of the scale, as shown in Figure 2.

The specimen grip shall be rotatable about this axis to keep the free limb of the specimen in a vertical position.

A suitable device is shown in Figure 2.

### 5.3 Auxiliary devices

#### 5.3.1 Stop-watch.

#### 5.3.2 Tweezers with broad, spade shaped jaws.

1) Weight of a body of mass 1.019 kg is approximately equal to a force of 10 N.