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**Rubber or plastics covered rollers —  
Specifications —**

**Part 2:  
Surface characteristics**

*Cylindres revêtus de caoutchouc ou de plastique — Spécifications —  
Partie 2: Caractéristiques de surface*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 4, *Products (other than hoses)*.

This third edition cancels and replaces the second edition (ISO 6123-2:1988), of which it constitutes a minor revision to update the normative references.

ISO 6123 consists of the following parts, under the general title *Rubber or plastics covered rollers — Specifications*:

- *Part 1: Requirements for hardness*
- *Part 2: Surface characteristics*
- *Part 3: Dimensional tolerances*

## Introduction

Covered rollers are cylindrical cores, generally of metal, with a cover of rubber or plastics or a particular use. They are manufactured in a wide variety of sizes and hardness grades depending on the intended use.



# Rubber or plastics covered rollers — Specifications —

## Part 2: Surface characteristics

### 1 Scope

This part of ISO 6123 establishes a classification of rubber or plastics covered rollers according to surface quality or imperfections and surface finish. A test method for the determination of surface roughness is also described.

### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3274, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Nominal characteristics of contact (stylus) instruments*

ISO 4288, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Rules and procedures for the assessment of surface texture*

ISO 23529, *Rubber — General procedures for preparing and conditioning test pieces for physical test methods*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 3.1

#### arithmetical mean deviation of the profile

$R_a$

arithmetical mean of the absolute values of the profile departures within the sampling length,  $l$

$$R_a = \frac{1}{l} \int_0^l |y(x)| dx \text{ or approximately } R_a \approx \frac{1}{n} \sum_{i=1}^n |y_i|$$

where  $n$  is the number of discrete profile deviations.

Note 1 to entry: The values of  $R_a$  in practice are determined within the evaluation length which includes several sampling lengths. According to ISO 3274, the sampling length is equal to the cut-off.

#### 3.2

#### ten point height of irregularities

$R_z$

average value of the absolute values of the heights of five highest profile peaks and the depths of five deepest profile valleys within the sampling length

$$R_z = \frac{\sum_{i=1}^5 |y_{pi}| + \sum_{i=1}^5 |y_{vi}|}{5}$$