
International Standard



6123/2

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Rubber or plastics covered rollers — Specifications — Part 2 : Classification of surface characteristics

Cylindres revêtus de caoutchouc ou de plastique — Spécifications — Partie 2 : Classification des 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 developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been authorized 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 6123/2 was developed by Technical Committee ISO/TC 45, *Rubber and rubber products*, and was circulated to the member bodies in June 1982.

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

Belgium	India	Spain
Canada	Indonesia	Sri Lanka
China	Italy	Sweden
Czechoslovakia	Korea, Rep. of	Thailand
Denmark	Netherlands	Turkey
Egypt, Arab Rep. of	Poland	USA
France	Portugal	USSR
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Hungary	South Africa, Rep. of	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Australia
Austria
United Kingdom

Rubber or plastics covered rollers — Specifications —

Part 2 : Classification of surface characteristics

0 Introduction

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

ISO 6123 at present consists of the following parts :

Part 1 : Requirements for hardness.

Part 2 : Classification of surface characteristics.

Dimensional tolerances will form the subject of ISO 6123/3.

1 Scope and field of application

This part of ISO 6123 establishes a classification of rubber or plastics covered rollers according to surface quality or imperfections and surface finish or roughness.

2 Surface quality

2.1 General

The manufacturing process and the raw materials used in the manufacture of rubber or plastics covered rollers may cause sporadic imperfections, in the form of holes and foreign matter, in the surface of the roller covers. The number, size, and location of permissible surface imperfections shall be agreed between the interested parties.

The type of surface finish (see clause 3) shall be observed when selecting the grade of imperfections.

2.2 Grades

The rollers may be graded according to the permissible numbers and sizes of imperfections as follows :

Grade x/y

This means that :

Imperfections up to $x \text{ mm}^2$ in area are acceptable.

Not more than two imperfections each having an area between $x \text{ mm}^2$ and $y \text{ mm}^2$ are permissible in any $0,1 \text{ m}^2$ of cover area.

Roller covers showing imperfections larger than $y \text{ mm}^2$ in area shall be rejected.

The values of x and y shall be agreed between the interested parties.

If no requirements for surface quality are necessary, the rollers shall be designated "grade 0".

Example : A medium grade of surface quality can be described by the designation :

Grade 0,5/2

This means that :

Imperfections up to $0,5 \text{ mm}^2$ in area are acceptable.

Not more than two imperfections each having an area between $0,5 \text{ mm}^2$ and 2 mm^2 are permissible in any $0,1 \text{ m}^2$ of cover area.

Roller covers showing imperfections larger than 2 mm^2 in area shall be rejected.

NOTE — If agreement between the interested parties, or special provisions in national standards, are intended, the required quality should be chosen from the grades given below :

grade 0,1/0,3
grade 0,3/1
grade 0,5/2
grade 2/5
grade 5/10
grade 0

3 Surface finish

3.1 Methods of surface treatment — Terms and classification

The surface finish of a roller cover is dictated by the intended use. The table shows the generally employed principal methods of surface treatment, by means of which the roller surfaces are classified (see 3.2). The type of surface finish, and the structure or texture which can be achieved, is dependent upon the hardness and composition of the roller cover.

Table

Type	Surface treatment
1	Polishing
2	Grinding, fine
3	Grinding, standard
4	Turning
5	Unground finish

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Sequence of
treatment