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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Rubber- or plastics-covered rollers — Specifications —

Part 2 : Surface characteristics

Cylindres revêtus de caoutchouc ou de plastique — Spécifications —

Partie 2 : Caractéristiques de surface

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.

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. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 6123-2 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*.

This second edition cancels and replaces the first edition (ISO 6123-2 : 1983), which has been expanded to include an additional section on surface roughness (sub-clause 4.3) and an annex giving information on the relationship between surface treatment and surface roughness.

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*

Annex A of this part of ISO 6123 is for information only.

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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.

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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 standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 6123. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 6123 are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 471 : 1983, *Rubber — Standard temperatures, humidities and times for the conditioning and testing of test pieces.*

ISO 3274 : 1975, *Instruments for the measurement of surface roughness by the profile method — Contact (stylus) instruments of consecutive profile transformation — Contact profile meters, system M.*

ISO 4287-1 : 1984, *Surface roughness — Terminology — Part 1 : Surface and its parameters.*

ISO 4288 : 1985, *Rules and procedures for the measurement of surface roughness using stylus instruments.*

3 Surface quality

3.1 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 4) shall be observed when selecting the grade of imperfections.

3.2 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 and including $x \text{ mm}^2$ in area are acceptable;

not more than two imperfections each having an area between $x \text{ mm}^2$ and $y \text{ mm}^2$ inclusive 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 N".

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

Grade 0,5/2

This means that

imperfections up to and including $0,5 \text{ mm}^2$ in area are acceptable;

not more than two imperfections each having an area between $0,5 \text{ mm}^2$ and 2 mm^2 inclusive 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 N