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Rubber- or plastics-covered rollers — Specifications — Part 3: Dimensional tolerances

Cylindres revêtus de caoutchouc ou de plastique - Spécifications - Partie 3: Tolérances dimensionnelles

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

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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 consists of the following parts:

Part 1: Requirements for hardness.

Part 2: Surface characteristics.

Part 3: Dimensional tolerances.

1 Scope and field of application

This part of ISO 6123 specifies classes of dimensional tolerances for rubber- or plastics-covered rollers and tests methods for the measurement of dimensions.

2 References

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

ISO 1101, Technical drawings — Geometrical tolerancing — Tolerances of form, orientation, location and run-out — Generalities, definitions, symbols, indications on drawings.

ISO/TR 7621, Rubber or plastics covered rollers — Enquiries and orders — Recommendations for technical information to be supplied by the purchaser.

3 Definitions

3.1 crown (of a rubber- or plastics-covered roller): The difference between the diameter in the centre of the roller and the diameter at or near the edges of the roller.

The profiles and dimensions of crown are referred to and measured on the measured crown face (MCF).

For definition of the *profile tolerance* of the MCF see ISO 1101, sub-clause 14.5.

NOTES

- 1 Normally the crown is positive. If the covered roller is larger in diameter at the ends than in the centre it is called an inverse crown.
- 2 Unless otherwise specified, a crown is symmetrical above the centre-line of the roller which is the centre-line of the MCF.
- 3 Two types of crown are usual:
 - a) taper crown where there is a linear change in diameter with distance along the roller face from around the centre-line;
 - b) crown where the variation in diameter is non-linear, for example cosine crown.
- 4 Normally the MCF starts 50 mm in from the ends of the roller cover or from the ends of any edge relief such as taper, chamfer or dub.
- 5 Conventionally the MCF is divided into ten equally spaced parts from end to centre, i.e. total 20 parts. The crown shape is described by ten readings from and to centre, i.e. total 21 diametral readings.

3.2 cylindricity tolerance

See ISO 1101, sub-clause 14.4.

3.3 run-out tolerance

See ISO 1101, sub-clause 14.13.1.