Second edition
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Rubber — Tolerances for products —

Part 1: Dimensional tolerances

Caoutchouc — Tolérances pour produits —

Partie 1: Tolérances dimensionnelles

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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).

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).

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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 second edition cancels and replaces the first edition (ISO 3302-1:1996), which has been technically revised to incorporate the Amendment ISO 3302-2:1996/Amd.1:2001.

ISO 3302 consists of the following parts, under the general title *Rubber — Tolerances for products*:

— *Part 1: Dimensional tolerances*

— *Part 2: Geometrical tolerances*

Introduction

Rubber products are subject to changes in their dimensions after processing and vulcanization. This can be due to a variety of factors, such as mould shrinkage or relaxation of die swell.

These changes should be determined and allowed for when designing such items as moulds and dies used in the manufacture of a given product.

The closer tolerance classes outlined in this specification are not to be demanded unless required by the final application and are to be restricted to those dimensions deemed to be critical. The greater the degree of accuracy demanded, the closer the control to be be exercised during manufacture, and hence the higher the costs.

When particular physical properties are required in the product, it might not always be possible to provide them in a mix which is capable of fabrication to close tolerances. lt is advisable, in these circumstances, that consultation should take place between the interested parties. In general, softer vulcanizates (i.e. those of hardness below 50 IRHD - see ISO 48) need greater tolerances than harder ones.