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Fluid power systems — O-rings —

Part 5: Specification of elastomeric materials for industrial applications

Transmissions hydrauliques et pneumatiques — Joints toriques —

*Partie 5: Matériaux élastomères convenant pour applications
industrielles*



Reference number
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Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms, definitions, and symbols	1
3.1 Terms and definitions.....	1
3.2 Symbols.....	2
4 Materials	2
4.1 Commonly used elastomeric materials.....	2
4.2 Curing systems.....	2
4.3 O-ring requirements.....	2
4.4 Detailed requirements of O-ring materials.....	3
5 Designation system	12
6 Identification statement	12
Annex A (informative) O-ring stress/strain and compression set testing	13

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).

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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 131, *Fluid power systems*, Subcommittee SC 7, *Sealing devices*.

This second edition cancels and replaces the first edition (ISO 3601-5:2002), which has been technically revised.

ISO 3601 consists of the following parts, under the general title *Fluid power systems — O-rings*:

- *Part 1: Inside diameters, cross-sections, tolerances and designation codes*
- *Part 2: Housing dimensions for general applications*
- *Part 3: Quality acceptance criteria*
- *Part 4: Anti-extrusion rings (back-up rings)*
- *Part 5: Suitability of elastomeric materials for industrial applications*

This corrected version of ISO 3601-5:2015 incorporates the following corrections.

The arrangement and values in the headings and row 1 of Table 2 have been revised.

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Introduction

In fluid power systems, power is transmitted and controlled through a fluid (liquid or gas) under pressure within an enclosed circuit. One component of such a system can be a toroidal sealing, an O-ring. This part of ISO 3601 evaluates the suitability of a number of elastomeric materials (rubber) which can be used for O-rings in industrial applications.