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Elastomeric seismic-protection isolators —

Part 5: Sliding seismic-protection isolators for buildings

Appareils d'appuis structuraux en élastomère pour protection sismique —

Partie 5: Isolateurs de protection sismique glissants pour bâtiments

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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).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 45, *Rubber and Rubber Products*, Subcommittee SC 4, *Products (other than hoses)*.

A list of all parts in the ISO 22762 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The ISO 22762 series consists of five parts related to specifications for isolators. They are: ISO 22762-1 for test method, ISO 22762-2 for bridges, ISO 22762-3 for buildings, ISO/TS 22762-4 for guidance of ISO 22762-3, and ISO 22762-5 for elastomeric sliding isolators for buildings.

This document specifies minimum requirements and test methods for elastomeric sliding isolators used for buildings and the rubber material used in the manufacture of such isolators.

Elastomeric seismic-protection isolators —

Part 5:
Sliding seismic-protection isolators for buildings

1 Scope

This document specifies minimum requirements and test methods for flat sliding seismic-protection isolators used for buildings and the materials used in the manufacture of such isolators.

It is applicable to flat sliding seismic-protection isolators used to provide buildings with protection from earthquake damage. The sliders are each mounted on elastomeric bearings to provide vertical compliance and rotational flexibility about horizontal axes.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 37, *Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties*

ISO 48-2, *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 2: Hardness between 10 IRHD and 100 IRHD*

ISO 48-5, *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 5: Indentation hardness by IRHD pocket meter method*

ISO 527, *Plastics — Determination of tensile properties*

ISO 868, *Plastics and ebonite — Determination of indentation hardness by means of a durometer (Shore hardness)*

ISO 1431-1, *Rubber, vulcanized or thermoplastic — Resistance to ozone cracking — Part 1: Static and dynamic strain testing*

ISO 2039, *Plastics — Determination of hardness*

ISO 22762-1, *Elastomeric seismic-protection isolators — Part 1: Test methods*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
breaking
rupture of elastomeric isolator due to compression (or tension)-shear loading