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Hardware for furniture — Strength and durability of hinges and their components — Hinges pivoting on a vertical axis

Quincaillerie d'ameublement — Solidité et durabilité des charnières et de leurs composants — Charnières avec pivot vertical

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Foreword

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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 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 136, *Furniture*.

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 aim of this document is to provide furniture manufacturers, designers and developers with comparable information regarding the performance of all types of hinges pivoting on a vertical axis and their components.

The tests consist of the application of loads, forces and velocities simulating normal functional use, as well as misuse, that can reasonably be expected to occur.

With the exception of the corrosion test in Clause 6.4, the tests are designed to evaluate properties without regard to materials, design/construction or manufacturing processes.

The strength and durability tests only relate to the hinges and the parts used for the attachment (e.g. mounting plates and screws).

The strength and durability tests are carried out in a test frame with specified properties.

The test results are only valid for the hinges tested. These results are used to represent the performance of production models provided that the tested model is representative of the production model.

Hardware for furniture — Strength and durability of hinges and their components — Hinges pivoting on a vertical axis

1 Scope

This document specifies test methods and test parameters for the strength and durability of all types of hinges pivoting on a vertical axis and their components for all fields of application.

With the exception of corrosion, ageing and the influence of heat and humidity are not included.

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 6270-2, *Paints and varnishes — Determination of resistance to humidity — Part 2: Condensation (in-cabinet exposure with heated water reservoir)*

ISO 9427:2003, *Wood-based panels — Determination of density*

EN 320:2011, *Particleboards and fibreboards — Determination of resistance to axial withdrawal of screws*

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
catch device
device that keeps or pulls a door in place, but does not require a second action in order to release it

EXAMPLE magnetic catch or a self-closing or self-opening mechanism

3.2
damper
mechanism which stops the movement of a door gently

4 Test conditions

4.1 General

The hinges shall be assembled/mounted/adjusted according to the instructions supplied with it.

If mounting, assembly or adjustment instructions are not supplied, the most adverse configuration shall be used and the mounting or assembly method shall be recorded in the test report. Fittings shall be tightened before testing and shall not be re-tightened unless specifically required in the manufacturer's instructions. If the configuration has to be changed to produce the worst-case conditions, this shall be recorded in the test report.