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## Watch cases and accessories — Tests of the resistance to wear, scratching and impacts

*Boîtes de montres et leurs accessoires — Essais de résistance à l'usure, aux rayures et aux impacts*



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 23160 was prepared by Technical Committee ISO/TC 114, *Horology*, Subcommittee SC 6, *Precious metal coverings*.

This first edition of ISO 23160:2011 cancels and replaces ISO 3160-3:1993, which has been technically revised.

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## Introduction

The quality of a watch depends on many factors. Of these, the resistance of a watch to wear, scratches and impacts is an important aspect contributing to consumer satisfaction.

This International Standard describes tests to simulate the deterioration of the aesthetic of watch cases and their accessories in wearing conditions. In addition, it describes tests for evaluating the wear resistance of surfaces. Where possible, a calibration process is described. The intention of this is to measure and adjust the strain of wear.

For instance, results that simulate a year's wear can be seen after just a few hours, allowing the resistance of decorative layers or the base material to be examined and compared.

The results are evaluated through visual observation, by comparing the parts subjected to accelerated wear tests with reference samples. Evaluation can be completed by measuring roughness and colour changes.