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Metallic materials — Tensile testing — Part 3: Method of test at low temperature

*Matériaux métalliques — Essai de traction —
Partie 3: Méthode d'essai à basse température*



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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).

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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 164, *Metallic materials*, Subcommittee SC 1, *Uniaxial testing*.

This first edition cancels and replaces ISO 15579:2000.

ISO 6892 consists of the following parts, under the general title *Metallic materials — Tensile testing*:

- *Part 1: Method of test at room temperature*
- *Part 2: Method of test at elevated temperature*
- *Part 3: Method of test at low temperature*
- *Part 4: Method of test in liquid helium*

Introduction

In this edition, there are two methods of testing speeds available. The first one, Method A, is based on strain rates (including crosshead separation rate) with narrow tolerances ($\pm 20\%$) and the second, Method B, is based on conventional strain rate ranges and tolerances. Method A is intended to minimize the variation of the test rates during the moment when strain rate sensitive parameters are determined and to minimize the measurement uncertainty of the test results.

Mechanical properties determined by tensile test at low temperatures have been determined at the same rates at room temperature. This revised part of ISO 6892 incorporates the new set of testing rates of ISO 6892-1 and ISO 6892-2, developed to reduce the variability of test results.