

INTERNATIONAL STANDARD

ISO
31-1:1992
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AMENDMENT 1
1998-12-15

Quantities and units —

Part 1: Space and time

Part 2: Periodic and related phenomena

Part 3: Mechanics

Part 4: Heat

Part 5: Electricity and magnetism

Part 6: Light and related electromagnetic radiations

Part 7: Acoustics

Part 8: Physical chemistry and molecular physics

Part 9: Atomic and nuclear physics

Part 10: Nuclear reactions and ionizing radiations

Part 12: Characteristic numbers

Part 13: Solid state physics

AMENDMENT 1

Grandeurs et unités —

Partie 1: Espace et temps

Partie 2: Phénomènes périodiques et connexes

Partie 3: Mécanique

Partie 4: Chaleur

Partie 5: Électricité et magnétisme

Partie 6: Lumière et rayonnements électromagnétiques connexes

Partie 7: Acoustique

Partie 8: Chimie physique et physique moléculaire

Partie 9: Physique atomique et nucléaire

Partie 10: Réactions nucléaires et rayonnements ionisants

Partie 12: Nombres caractéristiques

Partie 13: Physique de l'état solide

AMENDEMENT 1



Reference number
ISO 31 (parts 1 to 10, 12 and 13):1992/Amd.1:1998(E)

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.

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.

Amendment 1 to parts 1 to 10, 12 and 13 of International Standard ISO 31:1992 was prepared by Technical Committee ISO/TC 12, *Quantities, units, symbols, conversion factors*.

[ISO 31-7:1992/Amd 1:1998](https://standards.iteh.ai/catalog/standards/sist/d26af4f3-e022-4295-9ab1-21347cb2001b/iso-31-7-1992-amd-1-1998)

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Replace subclause 0.3.2 with the following text:

0.3.2 Remark on units for quantities of dimension one

The coherent unit for any quantity of dimension one is the number one, symbol 1. When the value of such a quantity is expressed, the unit symbol 1 is generally not written out explicitly.

EXAMPLE

Refractive index $n = 1,53 \times 1 = 1,53$

Prefixes shall not be used to form multiples or submultiples of this unit. Instead of prefixes, powers of 10 may be used.

EXAMPLE

Reynolds number $Re = 1,32 \times 10^3$

Considering that plane angle is generally expressed as the ratio of two lengths and solid angle as the ratio of two areas, in 1995 the CGPM has specified that, in the International System of Units, the radian, rad, and the steradian, sr, are “dimensionless” derived units. This implies that the quantities plane angle and solid angle are considered as derived quantities of dimension one. The units radian and steradian may be omitted, or they may be used in expressions for derived units to facilitate distinction between quantities of different nature but having the same dimension.