
**Non-destructive testing — Radiation
methods for computed tomography —**

**Part 1:
Terminology**

*Essais non destructifs — Méthodes par rayonnements pour la
tomographie informatisée —*

Partie 1: Terminologie





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Foreword

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This document was prepared by the European Committee for Standardization (CEN) (as EN 16016-1) and was adopted, under a special "fast-track procedure", by Technical Committee ISO/TC 135, *Non-destructive testing*, Subcommittee SC 5, *Radiographic testing*, in parallel with its approval by the ISO member bodies.

The first edition (ISO 15708-1:2002) having been cancelled and replaced by ISO 15708-2:2017, this second edition of ISO 15708-1 has been repurposed with a different title and scope and takes into consideration developments in computed tomography (CT) and computational power over the preceding decade.

A list of all parts in the ISO 15708 series can be found on the ISO website.

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Part 1: Terminology

1 Scope

This document gives the definitions of terms used in the field of computed tomography (CT). It presents a terminology that is not only CT-specific but which also includes other more generic terms and definitions spanning imaging and radiography. Some of the definitions represent discussion points aimed at refocusing their terms in the specific context of computed tomography.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

absorption

photoelectric absorption

mode of interaction between photons and matter whereby a photon is absorbed by an atom which then emits an electron whose kinetic energy is exactly equal to the energy-depleted photon's electron-binding energy

Note 1 to entry: See also *Compton scattering* (3.6).

3.2

angular increment

angular spacing between adjacent *CT projections* (3.12)

3.3

artefact

artificial feature which appears on the *CT image* (3.11) but does not correspond to a physical feature of the object

3.4

beam hardening

spectrum hardening

spectral change of a polychromatic beam caused by preferential attenuation of lower energy photons

Note 1 to entry: See also *cupping effect* (3.17).