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Aluminium and aluminium alloys — Wrought products — Temper designations

*Aluminium et alliages d'aluminium — Produits corroyés — Désignation
des états métallurgiques*



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Foreword

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ISO 2107 was prepared by Technical Committee ISO/TC 79, *Light metals and their alloys*, Subcommittee SC 9, *Symbolization*.

This third edition cancels and replaces the second edition (ISO 2107:2004), which has been technically revised by the addition of a terms and definitions clause and the designation of solution heat-treatment. This edition deals with wrought aluminium products and no longer applies to magnesium alloys.

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Aluminium and aluminium alloys — Wrought products — Temper designations

1 Scope

This International Standard establishes temper designations as required for identification for all product forms of wrought aluminium and aluminium alloys.

2 Terms and definitions

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

2.1

temper

condition produced by either mechanical or thermal treatment, or both, and characterized by a certain structure and mechanical properties

2.2

working

deformation of metal, either hot or cold, by shaping processes including rolling, extruding, forging, drawing

2.3

hot working

plastic deformation, i.e., permanent deformation of metal at such temperatures that no strain-hardening occurs

2.4

cold working

plastic deformation, i.e., permanent deformation of metal at such temperatures that strain-hardening occurs

2.5

strain-hardening

modification of a metal structure, by cold working, resulting in an increase in strength and hardness but with loss of ductility

2.6

solution heat-treating

heating an alloy at a suitable temperature for a sufficient time to allow soluble constituents to enter into solid solution where they are retained in a supersaturated state after quenching (rapid cooling)

2.7

ageing

precipitation from supersaturated solid solution resulting in a change in properties of an alloy, usually occurring slowly at room temperature (natural ageing) and more rapidly at elevated temperatures (artificial ageing)

2.8

annealing

thermal treatment to soften metal by removal of stress resulting from cold working or by coalescing precipitates from solid solution