
**Light metals and their alloys — Titanium
and titanium alloys — Classification and
terminology**

*Métaux légers et leurs alliages — Titane et alliages de titane —
Classification et terminologie*



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Foreword

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Light metals and their alloys — Titanium and titanium alloys — Classification and terminology

1 Scope

This International Standard gives a classification of titanium and titanium alloys. It also gives terms and definitions in the field of titanium and its alloys.

2 Material

2.1

titanium sponge

products of metallic titanium in porous and sponge-like form, which is applied as titanium metal melting stock

NOTE The oxidized titanium ore is first originated to tetrachloride and is condensed and purified and then reduced with magnesium or sodium under the inert atmosphere to produce titanium sponge.

2.2

alloy

metallic substance consisting of a mixture of the basic metallic element (the element predomination by mass) and other elements, such as alloying elements and impurities

2.3

alloying element

metallic or non-metallic elements intentionally added to, or retained by, basic metal for the purpose of giving that metal certain special properties

2.4

impurity

metallic or non-metallic elements present but which are not intentionally added to, or retained by, a metal

2.5

wrought alloy

alloy primarily intended for the production of wrought products by hot and/or cold plastic forming

2.6

casting alloy

alloy primarily intended for the production of castings

2.7

master alloy

alloy intended only for addition to a melt to adjust composition or to control impurities

2.8

heat-treatable alloy

alloy capable of being strengthened by a suitable thermal treatment

2.9

non-heat-treatable alloy

alloy strengthened by cold working only and incapable of being substantially strengthened by thermal treatment