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JIS H 5801 : 2000

Titanium and titanium alloy castings

ICS 77.150.50

Descriptors : titanium, refractory metals, transition metals, group iva metals,
titanium alloys, castings

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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law.

Concerning the pure titanium for industry, in 1964, JISs for such products as plates or bars had been established for each product, which had remarkably contributed to the improvement of related industries such as electric power industry or chemical industry. In recent years, this material has been widely used for not only industries but also people's livelihood as familiarly-used material.

Under the circumstances, the standard specifying titanium casting was established as **TIS 7505** (Standard by Japan Titanium Society) in 1975. In this time, since titanium casting is requested to be standardized as Japanese Industrial Standard, on the basis of **TIS 7427**, **TIS 7428**, and **TIS 7505**, Japanese Industrial Standard specifying the pure titanium for industry and the titanium alloy has been prepared and established.

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Investigated by: Japanese Industrial Standards Committee
Divisional Council on Non-Ferrous Metals

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Titanium and titanium alloy castings

1 Scope This Japanese Industrial Standard specifies titanium and titanium alloy castings (hereafter referred to as "castings").

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards indicated below shall be applied.

JIS H 0321 *General rules for inspection of non-ferrous metal materials*

JIS H 1612 *Methods for determination of nitrogen in titanium and titanium alloys*

JIS H 1614 *Methods for determination of iron in titanium and titanium alloys*

JIS H 1617 *Methods for determination of carbon in titanium and titanium alloys*

JIS H 1619 *Methods for determination of hydrogen in titanium and titanium alloys*

JIS H 1620 *Methods for determination of oxygen in titanium and titanium alloys*

JIS H 1621 *Methods for determination of palladium in titanium alloys*

JIS H 1622 *Titanium alloys—Methods for determination of aluminium*

JIS H 1624 *Method for determination of vanadium in titanium alloys*

JIS H 1630 *Method for atomic emission spectrometric analysis of titanium*

JIS Z 2201 *Test pieces for tensile test for metallic materials*

JIS Z 2241 *Method of tensile test for metallic materials*

JIS Z 2243 *Brinell hardness test—Test method*

JIS Z 2244 *Vickers hardness test—Test method*

3 Class and symbol The classes and symbols shall conform to Table 1.

Table 1 Class and symbol

Class	Symbol	Characteristics and applications (informative)
Class 2	TC340	Corrosion resistance is good, especially sea-water resistance. Applicable for chemical plant apparatus, apparatus for petroleum refining, apparatus for pulp and paper mill, and so on.
Class 3	TC480	
Class 12	TC340Pd	Corrosion resistance is good, especially crevice-corrosion resistance. Applicable for chemical plant apparatus, apparatus for petroleum refining, apparatus for pulp and paper mill, and so on.
Class 13	TC480Pd	
Class 60	TAC6400	Corrosion resistance under high strength is good. Applicable for structural members of chemical industry, mechanical industry, transportation facilities, and so on. For instance, for the reaction apparatus under high pressure, transportation apparatus under high pressure, leisure equipment, and so on.