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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 25137-2010

Titanium and titanium alloy forgings

钛及钛合金锻件

(English Translation)

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Foreword

This standard is equivalent to using ASTM B381-2006a "titanium and titanium alloy forgings standards" (in English).

This standard is equivalent translation ASTM B381-2006a, for ease of use, the editorial changes made the following standard.

--- The standard name to "titanium and titanium alloy forgings";

The term --- the "standard" to "this standard";

--- 1.2 is amended as follows. "In the International System of Units unit of value as a standard value in parentheses English units value";

Chapter 17 --- delete keywords;

--- Added Appendix B grade titanium table.

The Standard Appendix A, Appendix B are informative appendices.

This standard by the National Standardization Technical Committee Forging (SAC/TC74) and focal points.

This standard was drafted. Beijing Air Materiel Biam high-tech Co., Ltd ..

1 Scope

1.1

standard applies to the following 39 kinds of titanium and titanium alloy forgings grade annealed state.

- 1) F-1 titanium;
- 2) F-2 pure titanium;
- 3) F-2H titanium [minimum tensile strength of 400MPa (58ksi) of the F-2];
- 4) F-3 titanium;
- 5) F-4 titanium;
- 6) F-5 titanium alloy (6% Al, 4% V);
- 7) F-6 Titanium (5% Al, 2.5% Sn);
- 8) F-7 Titanium 0.12% ~ 0.25% Pd;
- 9) F-7H titanium 0.12% ~ 0.25% Pd [minimum tensile strength of 400MPa (58ksi) of F-7];
- 10) F-9 titanium alloy (3% Al, 2.5% V);
- 11) F-11 Titanium 0.12% ~ 0.25% Pd;
- 12) F-12 titanium alloy (0.3% Mo, 0.8% Ni);
- 13) F-13 titanium alloy (0.5% Ni, 0.05% Ru);
- 14) F-14 titanium alloy (0.5% Ni, 0.05% Ru);
- 15) F-15 titanium alloy (0.5% Ni, 0.05% Ru);
- 16) F-16 Titanium 0.04% ~ 0.08% Pd;
- 17) F-16H titanium 0.04% ~ 0.08% Pd [minimum tensile strength of 400MPa (58ksi) of the F-16];
- 18) F-17 Titanium 0.04% ~ 0.08% Pd;
- 19) F-18 titanium alloy (3% Al, 2.5% V) 0.04% ~ 0.08% Pd;
- 20) F-19 titanium alloy (3% Al, 8% V, 6% Cr, 4% Zr, 4% Mo);
- 21) F-20 titanium alloy (3% Al, 8% V, 6% Cr, 4% Zr, 4% Mo) 0.04% ~ 0.08% Pd;
- 22) F-21 titanium alloy (3% Al, 2.7% Nb, 15% Mo, 0.25% Si);
- 23) F-23 titanium alloy (6% Al, 4% V, the ELI ultra low interstitial elements);
- 24) F-24 titanium alloy (6% Al, 4% V) 0.04% ~ 0.08% Pd;
- 25) F-25 titanium alloy (6% Al, 4% V) 0.3% ~ 0.8% Ni 0.04% ~ 0.08% Pd;
- 26) F-26 titanium 0.08% ~ 0.14% Ru;
- 27) F-26H titanium 0.08% ~ 0.14% Ru [minimum tensile strength of 400MPa (58ksi) of the F-26];

- 28) F-27 titanium 0.08% ~ 0.14% Ru;
- 29) F-28 titanium alloy (3% Al, 2.5% V 0.08% ~ 0.14% Ru);
- 30) F-29 titanium alloy (6% Al, 4% V, ultra-low interstitial elements ELI 0.08% ~ 0.14% Ru);
- 31) F-30 titanium alloy (0.3% Co, 0.05% Pd);
- 32) F-31 titanium alloy (0.3% Co, 0.05% Pd);
- 33) F-32 titanium alloy (5% Al, 1% V, 1% Sn, 1% Zr, 0.8% Mo);
- 34) F-33 titanium alloy (0.4% Ni, 0.015% Pd, 0.025% Ru, 0.15% Cr);