



EST METAL

TITANIUM / TITANIUM ALLOY BARS

Specification

| | |
|---------------------------|---|
| Diameter: | 3.0mm - 350.0mm |
| Length: | 100mm - 6000mm |
| Shape: | Round, Square /Flat, Hexagonal, Rectangle |
| Surface Treatment: | Polished, Peeled, Burnished |
| Grade Status: | Gr1, Gr2, Gr3, Gr4, Gr5 (Ti-6AL-4V), Gr7, Gr9, Gr12, Gr23 |
| Standard: | ASTM B348, ASTM F67, ASTM F136, AMS 4928 |
| Product Status: | Heat processing(R), Cold processing(Y), Annealed(M) |

Feature

- Low density and high strength
- Exceptional corrosion resistance
- Excellent elevated temperature properties
- Excellent Bearing to cryogenic property
- Essentially non-magnetic
- Nontoxic, non-allergenic and fully biocompatible
- Good thermal properties
- Low modulus of elasticity
- Low thermal expansion coefficient
- High melting point
- Excellent aesthetic qualities
- Environmentally sound

Titanium is lightweight, strong, corrosion resistant and abundant in nature. Titanium and its alloys possess tensile strengths from 30,000 psi to 200,000 psi (210-1380 MPa), which are equivalent to those strengths found in most of alloy steels. The density of titanium is only 56 percent that of steel, and its corrosion resistance compares well with that of platinum. Of all the elements in the earth's crust, titanium is the ninth most plentiful. Titanium has a high melting point of 3135°F (1725°C). This melting point is approximately 400°F (220°C) above the melting point of steel and approximately 2000°F (1100°C) above that of aluminum.

Applications

Electrode materials, fasteners, medical field, surgical implants, chemical industry, structural parts, glasses, aerospace and marine, consumer and architectural, jewelry, nuclear waste storage, etc.



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Mechanical Property

| Grade | Tensile Strength(min) | | Yeild Strength(min) | | Elongation(%) |
|--------|-----------------------|-----|---------------------|-----|---------------|
| | ksi | MPa | ksi | MPa | |
| Gr. 1 | 35 | 240 | 20 | 138 | 24 |
| Gr. 2 | 50 | 345 | 40 | 275 | 20 |
| Gr. 3 | 65 | 450 | 55 | 380 | 18 |
| Gr. 4 | 80 | 550 | 70 | 483 | 15 |
| Gr. 5 | 130 | 895 | 120 | 828 | 10 |
| Gr. 7 | 50 | 345 | 40 | 275 | 20 |
| Gr. 9 | 90 | 620 | 70 | 483 | 15 |
| Gr. 12 | 70 | 483 | 50 | 345 | 18 |
| Gr. 23 | 120 | 828 | 110 | 759 | 10 |

Chemical Composition

| Grade | N | C | H | Fe | O | Al | V | Pd | Mo | Ni | Ti |
|--------|------|------|------|------|------|----------|---------|-----------|---------|---------|-----|
| Gr. 1 | 0.03 | 0.08 | 0.02 | 0.20 | 0.18 | / | / | / | / | / | Bal |
| Gr. 2 | 0.03 | 0.08 | 0.02 | 0.30 | 0.25 | / | / | / | / | / | Bal |
| Gr. 3 | 0.05 | 0.08 | 0.02 | 0.30 | 0.35 | / | / | / | / | / | Bal |
| Gr. 4 | 0.05 | 0.08 | 0.02 | 0.50 | 0.40 | / | / | / | / | / | Bal |
| Gr. 5 | 0.05 | 0.08 | 0.02 | 0.40 | 0.20 | 5.5-6.75 | 3.5-4.5 | / | / | / | Bal |
| Gr. 7 | 0.03 | 0.08 | 0.02 | 0.30 | 0.25 | / | / | 0.12-0.25 | / | / | Bal |
| Gr. 9 | 0.03 | 0.08 | 0.02 | 0.25 | 0.15 | 2.5-3.5 | 2.0-3.0 | / | / | / | Bal |
| Gr. 12 | 0.03 | 0.08 | 0.02 | 0.30 | 0.25 | / | / | / | 0.2-0.4 | 0.6-0.9 | Bal |
| Gr. 23 | 0.03 | 0.08 | 0.01 | 0.25 | 0.13 | 5.5-6.50 | 3.5-4.5 | / | / | / | Bal |



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Stock

We stock a comprehensive range of size and grade titanium and titanium alloy wire.

| | |
|---------------------------|--|
| Diameter: | 6mm, 8mm, 10mm, 12mm, 16mm, 18mm, 20mm, 25mm, 30mm, 35mm, 38mm, 40mm, 45mm, 50mm, 63mm, 70mm, 80mm, 90mm, 100mm, 120mm, 130mm, 150mm. Round, Square, Rectangle |
| Shape: | 130mm, 150mm. Round, Square, Rectangle |
| Surface Treatment: | Polished, Peeled, Burnished |
| Grade Status: | Gr1, Gr2, Gr5 (Ti-6AL-4V), Gr7, Gr9, Gr12, Gr23 |
| Standard: | ASTM B348, ASTM F67, ASTM F136, AMS 4928 |

Capability

Annual Capability: 600 Metric Tons

Packing Methods

Standard export plywood case

Trade Terms

| | |
|-----------------------|--|
| Delivery Time: | 3-15 days |
| Shipping: | By International Express (TNT, FEDEX, DHL, UPS, etc.), By Air, By Sea |
| Trade Terms: | FOB China, CIF, C&F |
| Payment Terms: | T/T, L/C, PayPal, Western Union |

