

Technical Data Sheet

for our Titanium FT-12 Alloy



Sheet

Alloy Description

Titanium FT-12 was developed to combine excellent formability with outstanding fatigue performance and high oxidation resistance. This unique combination of properties is particularly beneficial for high-performance exhaust systems and marine applications, where components are continuously exposed to severe thermal and mechanical loads. Due to its excellent resistance to cyclic thermal loading and corrosive environments, components manufactured from Titanium FT-12 offer enhanced durability and extended service life. In addition, the alloy's superior formability enables the production of complex geometries while maintaining high structural integrity.

Technical Data

	Tensile Strength	Yield Strength (0.2%)	Elongation
Longitudinal	min. 438 MPa	min. 320 MPa	min. 33%
Transverse	min. 439 MPa	min. 396 MPa	min. 40%
Bendability Very High	Fracture Toughness Very High		Dimensional Stability Verified to approx. 750°C

Chemical Composition

Specified values of alloying elements in weight percent

			Maximum Limits					
Al	Si	Nb	Fe	O	C	N	H	Ti
0,3-0,7	0,3-0,6	0,1-0,3	0,20	0,15	0,08	0,03	0,015	Balance

Available Forms

- | | | |
|-------------------|----------------------|-------------|
| ✓ Sheet | ✓ Drawing Components | ✓ Plate |
| ✓ Tube (seamless) | ✗ Tube (welded) | ✓ Bar Stock |
| ✓ Welding Wire | ✓ Coil | ✓ Profiles |

Manufacturing Processes

- | | | |
|----------------------|---------------------|-----------------------|
| ✓ Investment Casting | ✓ 3D Printing | ✓ Machined Components |
| ✓ Hydroforming (IHU) | ✓ Extruded Profiles | ✓ Closed-Die Forging |

Applications

- Vehicle Exhaust Systems
- Motorcycle Exhaust Systems
- Aerospace Components
- Underwater Applications

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Pipe

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Technical Data

Tensile Strength min. 439 MPa	Yield Strength (0.2%) min. 396 MPa	Elongation min. 30%
Bendability Very High	Fracture Toughness Very High	Dimensional Stability Verified to approx. 750°C

Chemical Composition

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