Material Datasheet

Titanium 64

Material Group: Titanium Alloys

Ti-6Al-4V alloy, also known as Ti64, is an α + β titanium alloy with high strength, low density, high fracture toughness, excellent corrosion resistance and superior biocompatibility. Ti64 is recognized as the most popular titanium alloy.

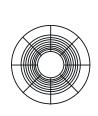
Nomenclature Standards

AWS A 5.16	ER Ti - 5
EN ISO 24034	S Ti 6402c
Material Nº	3.7165

Chemical Composition

Ti	AI	V	Fe	С	N	Н	0
Base	5,5	3,5	0,4	0,08	0,05	0,015	0,2

Spool Specs



Diameter	1 mm		
Weight	7,5 kg		
Volume	1704 cm³		
Density	4.4 g/cm ³		
Spool Type	BS300		

Applications









Tools and prototypes

Aerospace industries

industries

industries

Mechanical Properties

Results show Meltio's wire LMD 3D printed specimens to perform at the same level as conventional manufacturing methods, with low deviation across tested coupons.

	Wrought Properties	Cast Properties	Meltio XY Properties
Tensile Strength (MPa)	930	860	950 ± 5
Yield Strength (MPa)	860	758	882 ± 5
Elongation (%)	>10%	>8%	12 ± 0,5

Shielding gas: Argon > 99.996% purity.

Data represents typical reference values from Wrought (ASTM F1472) and Cast (ASTMF1108) material classification compared to Meltio horizontal (XY) and vertical (Z) specimens extracted from 3D printed walls and tensile tested according to ASTM E8.

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