



CARPENTER®

WHEN PERFORMANCE IS EVERYTHING

ADVANCED SOLUTIONS FOR ADDITIVE MANUFACTURING

The future of manufacturing is here. Additive manufacturing is taking off in many industries, revolutionizing the design and production of complex parts for demanding applications.

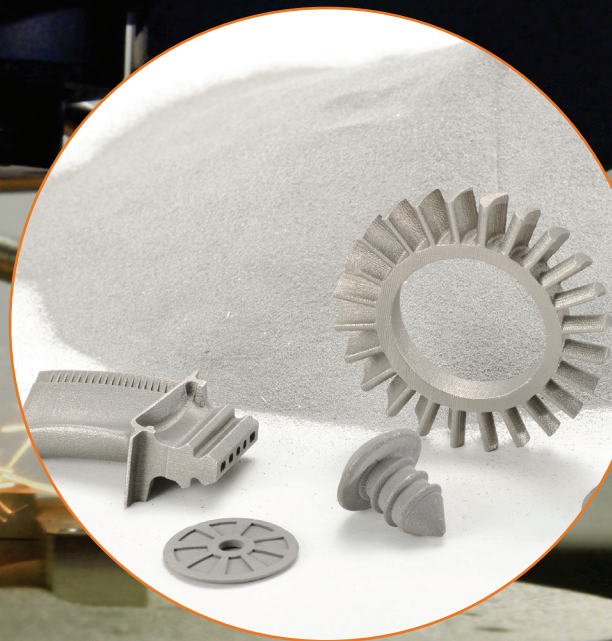
Material selection, quality, and expertise is crucial for successful production and mission-critical performance.

Your Solutions Partner

The leading global producer of metal powders and wire for additive manufacturing, Carpenter Technology Corporation has both the capability and capacity to provide solutions for your design challenges. We help customers successfully utilize the right materials for their designs and equipment.

- Gas atomization and Vacuum Induction Melting (VIM) upholds ultra-high purity.
- Minimal satellites ensure easy flow and spreading.
- Consistent chemistries allow for repeatability and equivalency.

Our materials experts can assist in determining the best Particle Size Distribution (PSD) for your process, including: Laser Powder Bed Fusion, Electron-Beam Powder Bed Fusion, Binder Jetting, Direct Energy Deposition, and Cold Spray applications.



Additive manufacturing is reshaping assumptions about product complexity, supply chain logistics and the manufacturing business model itself. Decades of materials development and manufacturing expertise allow us to help you compete consistently in a changing world.

Our materials experts can provide guidance on materials selection, machine optimization, or development of custom solutions to meet your specifications. With Carpenter, you have access to:

- Broad portfolio of metal powder and wire grades.
- Highest quality standards for performance applications.
- Custom alloys designed to your specifications.
- Technical expertise to provide complete lifecycle solutions.

Bring your additive manufacturing challenges to Carpenter.

Let's go farther together.



Carpenter Technology produces hundreds of alloy grades that can be used for additive manufacturing. Those listed here are some of our most requested grades. Customized compositions can be developed to your specifications.

Additive-manufactured components fabricated using our powder feed-stock can meet the mechanical property requirements set in industry standards, including those by the ASTM F42 committee.



www.cartech.com

Carpenter Technology Corporation
Corporate Headquarters:
1735 Market Street, 15th Floor
Philadelphia, PA 19103
610-208-2000
service@cartech.com

U.S. Sales
1-800-654-6543

Europe Sales
32-10-686-010

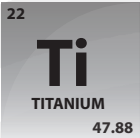
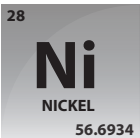
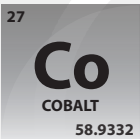
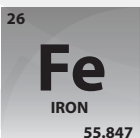
Asia Sales
65-6738-2401



@CarpenterTech



www.facebook.com/CarpenterTech

Base Alloy	Alloy Family	Alloys	Powder	Wire
	Alpha-Beta Titanium	CarTech Puris 5+	✓	
		Ti 6Al-4V Grade 5	✓	✓
		Ti 6Al-4V ELI Grade 23	✓	✓
	Alpha Titanium	Commercially Pure (CP) Titanium	✓	✓
	Near-Alpha Titanium Alloys	Ti-6Al-2Sn-4Zr-2Mo	✓	✓
	Shape Memory Alloys	CarTech Puris Nitinol	✓	
	High Temperature Nickel Superalloys	Ti-48Al-2Cr-2Nb	✓	
		CarTech 230	✓	
		CarTech 263	✓	
		CarTech 625	✓	✓
		CarTech M247-LC	✓	
		CarTech 713C	✓	
		CarTech 718	✓	✓
		CarTech 939	✓	
		CarTech HX	✓	
	Cobalt-base Alloys	CarTech CCM®	✓	✓
		CarTech CCM Plus®	✓	✓
		CarTech CCM-MC	✓	
		CarTech H188	✓	
	Austenitic Stainless Steel	CarTech 316L	✓	✓
		CarTech 304L	✓	✓
		CarTech BioDur® 108	✓	✓
	Precipitation Hardening	CarTech 15Cr-5Ni	✓	✓
		CarTech 17Cr-4Ni	✓	✓
		CarTech Custom 465®	✓	✓
	Martensitic Stainless Steels	CarTech 410	✓	✓
		CarTech 420	✓	✓
		CarTech 440C	✓	✓
	Controlled Thermal Expansion	CarTech Invar "36"®	✓	✓
		CarTech Kovar®	✓	✓
	High Strength Low Alloy Stainless Steels	CarTech 4340	✓	✓
		CarTech 4140	✓	✓
	Duplex Stainless Steel	CarTech 2205	✓	
	Maraging Steels	CarTech M300/1.2709	✓	
	Tool Steel	CarTech H13	✓	
	Magnetic Alloys	CarTech Hipercor® 50	✓	
Other Alloys	Copper-base Alloys	CarTech C18200	✓	
	Zirconium-base Alloys	CarTech Zr-702	✓	

Applications specifically suggested for material described herein are made solely for the purpose of illustration to enable the reader to make his/her own evaluation and are not intended as warranties, either express or implied, of fitness for these or other purposes. There is no representation that the recipient of this literature will receive updated editions as they become available.

Unless otherwise noted, trademarks are property of CRS Holdings, Inc., a subsidiary of Carpenter Technology Corporation.

Copyright © 2018 CRS Holdings, Inc. All Rights Reserved. G10 6/17.