

TITANIUM ALLOYS

Advamet® or Advacat® Ti-6Al-4V grade 5 Data sheet

Advamet® is a wax/polymer binder system;

Advacat® is a POM based (catalytic) binder system.

Both systems are compliant to ASTM B348 grade 5.

Typical Chemical Composition (post Sinter)

| C (%) | O (%) | N (%) | H (%) | Fe (%) | Al (%) | V (%) | Ti (%) |
|----------|----------|----------|-----------|----------|----------|---------|---------|
| 0.08 max | 0.20 max | 0.05 max | 0.015 max | 0.40 max | 5.5-6.75 | 3.5-4.5 | balance |

Other elements not to exceed 0.1% individually or 0.4% total.

All percentages are in weight percent.

Typical Mechanical Properties

| Nominal Typical Values | Density (g/cm ³) | UTS (ksi) | YS (ksi) | Elongation (%) | Reduction of Area (%) |
|------------------------|---------------------------------|--------------|-------------|-------------------|--------------------------|
| Ti64 Grade 5 | 4.42 | 130 | 120 | 10 | 25 |

Actual results depend on processing – sintering and heat treatment cycles – used.



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AMP

Your Partner for MIM Feedstocks

Ferrous, Non-Ferrous and Specialty Alloys

Below is a list of our common alloys and tool steels. However, other alloys and custom toll services are also available upon request.

| Stainless Steels | Low Alloys | Tool Steels | Specialty Alloys |
|------------------|----------------|-------------|-----------------------|
| 304L | 1010 | A2 | CoCrMo |
| 316L | 1080 | D2 | Copper |
| 420 | MIM 2200 | H13 | CP Ti |
| 430 | MIM 2700/FN08 | M2 | Ti-6Al-4V |
| 440 | FN02 | M4 | Fe-3Si |
| 465 | FN-0205 | S7 | F15 |
| 17-4 PH | 4140 (42CrMo4) | | F75 |
| | 4340 | | Fe49Co2V |
| | 4650 (4605) | | Fe50Co |
| | 8620 | | Fe50Ni |
| | 8740 | | Fe79Ni4Mo |
| | 52100 (100Cr6) | | Inconel 625 |
| | | | Inconel 718 |
| | | | Silver Alloys |
| | | | Tungsten Heavy Alloys |
| | | | Tungsten Carbides |



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