

SOFT-MAGNETIC ALLOYS

Advamet® or Advacat® Fe-50%Ni Datasheet

Advamet® is a wax/polymer binder system;

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

Both systems are compliant to MPlF Standard 35: MIM-Fe-50%Ni

Typical Chemical Composition (post Sinter)

C (%)	Si (%)	Ni (%)	Fe (%)
0.05 max	1.0 max	49-51	balance
Other elements not to exceed 1.0% combined.			
All percentages are in weight percent.			

Typical Mechanical Properties

Nominal Typical Values	Density	UTS	YS	Elongation	Mag. Perm	H _c	B _r	B ₂₅	B ₅₀₀
	(g/cm ³)	(ksi)	(ksi)	(in./in.)	μ max	Oe	kG	kG	kG
As-sintered Grade 1*	7.75	66	23	30	47,500	0.13	10.0	14.0	15.0
As-sintered Grade 2*	7.75	66	23	30	27,000	0.20	10.0	14.0	15.0

*Interstitials (oxygen, nitrogen) content and grain size affect magnetic response

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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