

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 MPIF 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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