

## PSM Industries PolyAlloys MIM-Fe-50%Ni Grade 1 Soft Magnetic Steel

Category : Metal , Electronic/Magnetic Alloy

### Material Notes:

PolyAlloys Injected Metals, a division of PSM Industries, Inc., offers precision, High-Performance components for structural, magnetic and electronic applications that require a high degree of complexity and near full theoretical density by utilizing Metal Injection Molding (MIM). MIM can economically produce complex shapes beyond the capability of conventional Powdered Metallurgy. Benefits of Metal Injection Molding 96-98% of Theoretical Density Excellent Mechanical Properties Avoids Costly Secondary Operations Excellent Surface Finishes Capable of Extreme 3-D Geometries Holds Tight Tolerances Extremely Thin Wall Section Capabilities Information Provided by PolyAlloys, a division of PSM Industries

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_PSM-Industries-PolyAlloys-MIM-Fe-50Ni-Grade-1-Soft-Magnetic-Steel.php](http://www.lookpolymers.com/polymer_PSM-Industries-PolyAlloys-MIM-Fe-50Ni-Grade-1-Soft-Magnetic-Steel.php)

Physical Properties	Metric	English	Comments
Density	7.70 g/cc	0.278 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell B	50	50	Macro
Tensile Strength, Ultimate	455 MPa	66000 psi	
Tensile Strength, Yield	159 MPa @Strain 0.200 %	23000 psi @Strain 0.200 %	
Elongation at Yield	30 %	30 %	in 1 in.

Electrical Properties	Metric	English	Comments
Magnetic Permeability	>= 40000	>= 40000	
	47500	47500	Typical
Magnetic Coercive Force, Hc	0.13 Oe	0.13 Oe	
Magnetic Remanence, Br	10000 Gauss	10000 Gauss	

Descriptive Properties	Value	Comments
B25 (kG)	13	min
	14	Typical
B500 (kG)	15	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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