



NATIONAL MAGNETICS GROUP, INC.

MANUFACTURERS OF MAGNETIC AND ADVANCED MATERIALS

AFFILIATE: TCI CERAMICS, INC.

G4 Material

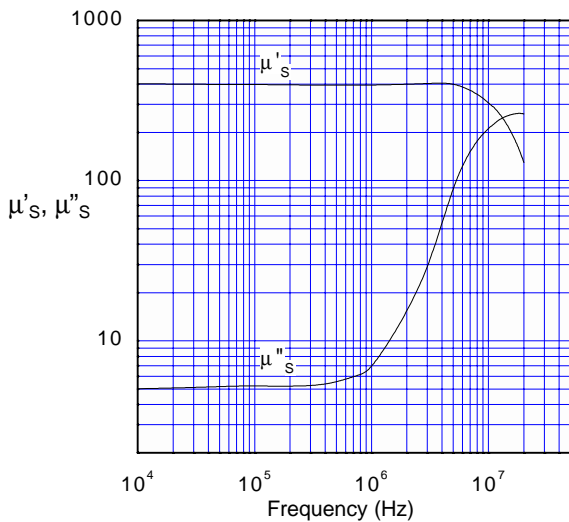
A medium permeability NiZn ferrite with high magnetic flux density and low loss suitable for broadband RF and transmission line transformers, solid state amplifier power splitters/combiners, pulsed power reactors and kicker magnets.

Specifications

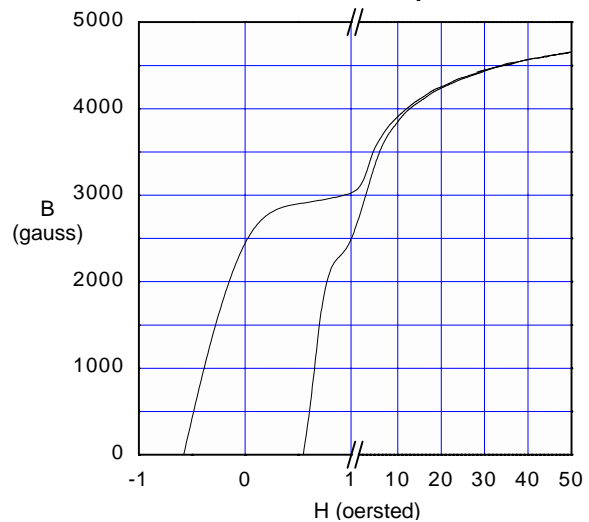
Property	Unit	Symbol	Standard Test Conditions	Value
Initial Permeability		μ_i	Frequency=10 kHz; B<10 gauss	$400 \pm 20\%$
Saturation Flux Density	gauss	B_s	H=50 oersted	≈ 4600
Residual Flux Density	gauss	B_r		≈ 2500
Coercive Force	oersted	H_c		≈ 0.68
Loss Factor	10^{-6}	$\tan\delta/\mu_i$	Frequency=0.1 MHz; B=1 gauss	≤ 35
Temperature Coefficient of Initial Permeability (20-70°C)	%/°C			≤ 0.7
Volume Resistivity	Ω cm	ρ		$\approx 1 \times 10^8$
Curie Temperature	°C	T_c		≥ 250

Note: values are typical and based on measurements of a standard toroid at 25 °C

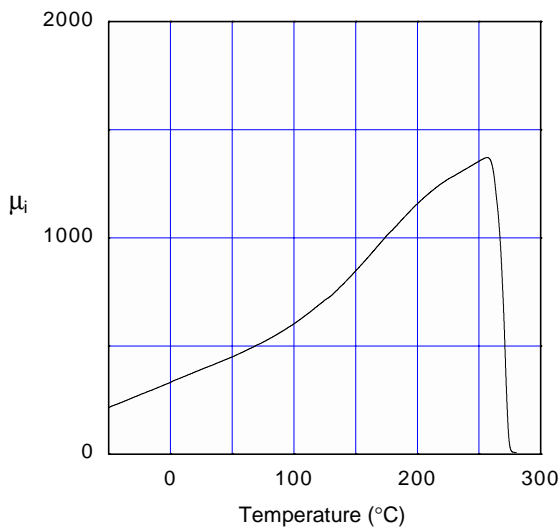
Complex Permeability vs. Frequency



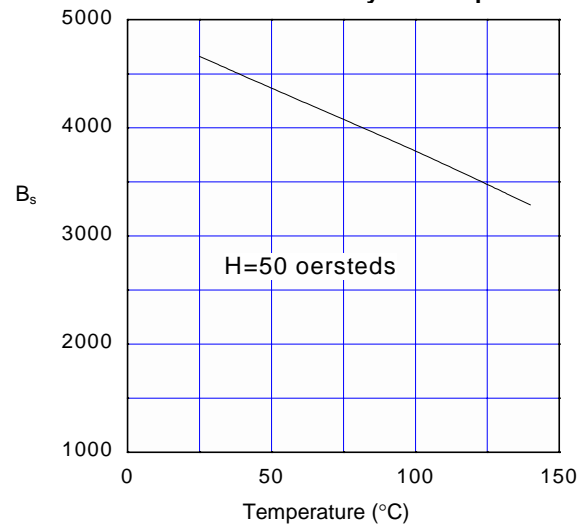
B - H Loop



Initial Permeability vs. Temperature



Saturation Flux Density vs. Temperature



FERRITES • MAGNETS • IRON CORES • GARNETS • DIELECTRICS • RESONATORS • POWDERS

1210 WIN DR.
BETHLEHEM, PA 18017-7061

REV1

TEL: 610-867-7600 • FAX: 610-867-0200 • EMAIL: sales@magneticsgroup.com