



# NATIONAL MAGNETICS GROUP, INC.

MANUFACTURERS OF MAGNETIC AND ADVANCED MATERIALS

AFFILIATE: TCI CERAMICS, INC.

## M2

### Material

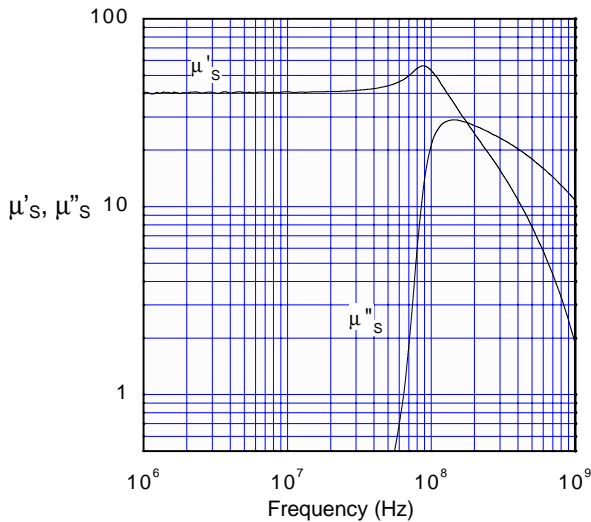
A permivar NiZn ferrite designed for high frequency applications (up to 50 MHz) including broadband transformers, antennas and high frequency, high Q inductors.

### Specifications

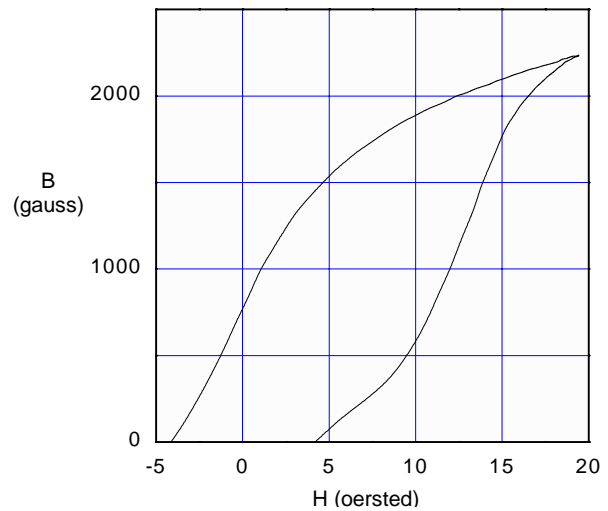
Property	Unit	Symbol	Standard Test Conditions	Value
Initial Permeability		$\mu_i$	Frequency=10 kHz; B<10 gauss	$40 \pm 20\%$
Saturation Flux Density	gauss	$B_s$	H=20 oersted	$\approx 2300$
Residual Flux Density	gauss	$B_r$		$\approx 800$
Coercive Force	oersted	$H_c$		$\approx 4$
Loss Factor	$10^{-6}$	$\text{Tan}\delta/\mu_i$	Frequency=50 MHz; B=1 gauss	$\leq 150$
Temperature Coefficient of Initial Permeability (20-70°C)	%/°C			$\leq 0.05$
Volume Resistivity	$\Omega \text{ cm}$	$\rho$		$\approx 10^7$
Curie Temperature	°C	$T_c$		$\geq 450$

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

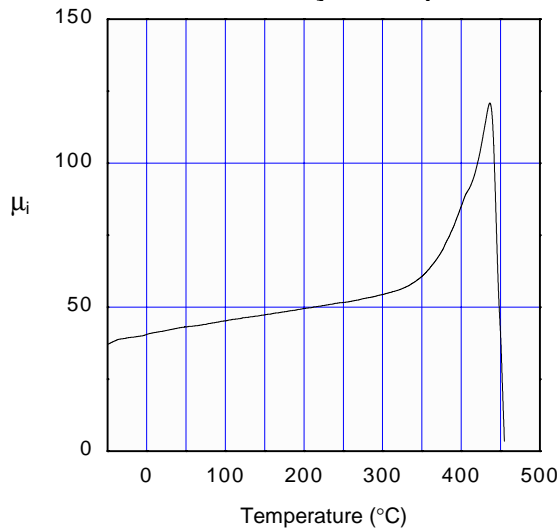
#### Complex Permeability vs. Frequency



#### B – H Loop



#### Initial Permeability vs. Temperature



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