



Ceramic Magnetics, Inc.
A National Magnetics Group Company

Physical Property	MnZn	NiZn	Units
Compressive Strength	200 – 600	200 – 700	N/mm ²
Tensile Strength	20 – 65	30 – 60	N/mm ²
Young's Modulus	$9.0 \times 10^4 - 1.50 \times 10^5$	$8.0 \times 10^4 - 1.50 \times 10^5$	N/mm ²
Vickers Hardness	600 – 700	800 – 900	N/mm ²
Thermal Expansion Coef.	$10.5 - 12.5 \times 10^{-6}$	$7 - 8 \times 10^{-6}$	K ⁻¹
Specific Heat	700 – 800	750	Jkg ⁻¹ x K ⁻¹
Thermal Conductivity	$3.5 \times 10^{-3} - 5.0 \times 10^{-3}$	$3.5 \times 10^{-3} - 5.0 \times 10^{-3}$	Jmm ⁻¹ S ⁻¹ x K ⁻¹

Permittivity of MnZn Ferrites

Freq (KHz)	Permittivity (ϵ_r)
100	$\sim 2 \times 10^5$
1×10^3	$\sim 1 \times 10^5$
1×10^4	$\sim 5 \times 10^4$
1×10^5	$\sim 1 \times 10^4$

Permittivity of NiZn Ferrites

Freq (KHz)	Permittivity (ϵ_r)
1	~ 100
10	~ 50
1×10^3	~ 25
1×10^4	~ 15
1×10^5	~ 12