

SIFERRIT Materials

Material properties (continued)

Preferred application			Broadband transformers				
Material			N 26	N 30	T 65	T 35	T 37
Base material			MnZn	MnZn	MnZn	MnZn	MnZn
	Symbol	Unit					
Initial permeability ($T = 25\text{ °C}$)	μ_i		2300 $\pm 25\%$	4300 $\pm 25\%$	5200 $\pm 30\%$	6000 $\pm 25\%$	6500 $\pm 25\%$
Meas. field strength	H	A/m	1200	1200	1200	1200	1200
Flux density (near saturation) ($f = 10\text{ kHz}$)	$B_S (25\text{ °C})$ $B_S (100\text{ °C})$	mT mT	380 260	380 240	460 320	390 270	380 240
Coercive field strength ($f = 10\text{ kHz}$)	$H_C (25\text{ °C})$ $H_C (100\text{ °C})$	A/m A/m	23 17	12 8	12 11	12 9	9 8
Optimum frequency range		MHz	0,001 ... 0,1	— —	— —	— —	— —
Relative loss factor	at f_{\min} at f_{\max}	$\tan \delta/\mu_i$	10^{-6} 10^{-6}	< 2,8 < 3,8	— —	— —	— —
Hysteresis material constant	η_B	$10^{-6}/\text{mT}$	< 0,3	< 1,1	< 1,1	< 1,1	< 1,1
Curie temperature	T_C	$^{\circ}\text{C}$	> 150	> 130	> 160	> 130	> 130
Relative temperature coefficient at 25 ... 55 $^{\circ}\text{C}$ at 5 ... 25 $^{\circ}\text{C}$	α_F	$10^{-6}/\text{K}$	0 ... 1,5 0 ... 1,8	— —	— —	— —	— —
Mean value of α_F at 25 ... 55 $^{\circ}\text{C}$		$10^{-6}/\text{K}$	1,0	0,6	-0,5	0,8	-0,3
Density (typical values)		kg/m^3	4700	4800	4930	4900	4900
Disaccommodation factor at 25 $^{\circ}\text{C}$	DF	10^{-6}	—	—	—	—	—
Resistivity	ρ	Ωm	2	0,5	0,30	0,2	0,2
Core shapes			RM, P, EP	RM, P, EP, E, Ring, Double aperture	RM, P, ER, Ring	RM, P, EP, Ring	Ring, DE
Other material properties (graphs) see page			62	64	66	68	70