

Material Characteristics (5)

	Symbol	Unit	Measuring Conditions			Conventional High μ For CM Chokes Materials			
			Freq.	Flux den.	Temp.	A10	A121	A13	A151
Initial Permeability	μ_i		$\leq 10\text{kHz}$	0.25mT	25°C	10000 \pm 30%	12000 \pm 30%	12000 \pm 30%	15000 \pm 30%
Relative Loss Factor	$\tan\delta/\mu_i$	10^{-6}	10kHz	$< 0.25\text{mT}$	25°C	< 10	< 10	< 8	< 10
			100kHz		25°C	< 60	< 60	< 40	< 110
Saturation Flux Density	Bs	mT	10kHz	H = 1200A/m	25°C	410	380	400	400
					100°C	210	180	200	170
Remanence	Br	mT	10kHz	H = 1200A/m	25°C	140	130	120	220
					100°C	110	110	65	100
Temperature Factor of Permeability	α_F	$10^{-6}/^\circ\text{C}$	10kHz	$< 0.25\text{ mT}$	0 ~ 20°C	0 ~ 1.5	0 ~ 1.5	1 ~ 3	-1 ~ 1
					20 ~ 70°C	-0.5 ~ 1	-0.5 ~ 1	-1 ~ 1	-1 ~ 1
Hysteresis Material Constant	η_B	$10^{-6}/\text{mT}$	10kHz	1.5-3.0mT	25°C	< 0.5	< 0.5	< 0.5	< 0.5
Disaccommodation Factor	D_F	10^{-6}	10kHz	$< 0.25\text{ mT}$	25°C	< 2	< 2	< 2	< 2
Curie Temperature	T_c	°C				≥ 130	≥ 110	≥ 125	≥ 110
Resistivity	ρ	Ωm				0.15	0.12	0.15	0.10
Density	d	g/cm^3				4.90	4.90	4.90	5.00

Remark: Best impedance, and permeability v. s. frequency performance for 10,000 μ_i materials.

Note: Material characteristics are typical for a toroid core.

Product specification will differ from these data due to the influence of geometry and size.