

## Material Characteristics (11)

	Symbol	Unit	Measuring Conditions			Low $\eta_B$ Materials		
			Freq.	Flux den.	Temp.	N4	N42	N43
Initial Permeability	$\mu_i$		$\leq 10\text{kHz}$	0.25mT	25°C	2500 $\pm$ 25%	3800 $\pm$ 25%	750 $\pm$ 25%
Relative Loss Factor	$\tan\delta/\mu_i$	$10^{-6}$	10kHz	$< 0.25\text{mT}$	25°C	$< 7$	$< 3.5$	$< 60$
			100kHz		25°C	$< 3$	$< 3.5$	$< 15$
Saturation Flux Density	Bs	mT	10kHz	H = 1200A/m	25°C	450	530	490
					100°C	320	425	400
Remanence	Br	mT	10kHz	H = 1200A/m	25°C	180	100	400
					100°C	150	125	325
Coercivity	Hc	A/m	10kHz	H = 1200A/m	25°C	14	9	35
					100°C	9	13	21
Temperature Factor of Permeability	$\alpha_F$	$10^{-6}/^\circ\text{C}$	10kHz	$< 0.25\text{ mT}$	5 ~ 25°C	$< 1.3$	7 ~ 9	$< 2.2$
					25 ~ 55°C	$< 1.3$	-4 ~ -2	$< 1.8$
Hysteresis Material Constant	$\eta_B$	$10^{-6}/\text{mT}$	10kHz	1.5-3.0mT	25°C	$< 0.6$	$< 0.3$	$< 2.5^{(100\text{kHz})}$
Curie Temperature	Tc	°C				$\geq 170$	$\geq 250$	$\geq 250$
Resistivity	$\rho$	$\Omega\text{m}$				7.50	5.00	2.00
Density	d	$\text{g}/\text{cm}^3$				4.70	4.90	4.70

Note: Material characteristics are typical for a toroid core.

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

## Material Characteristics (12)

	Symbol	Unit	Measuring Conditions			EMI Filter Material
			Freq.	Flux den.	Temp.	N5
Initial Permeability	$\mu_i$		$\leq 10\text{kHz}$	0.25mT	25°C	2000 $\pm$ 25%
Relative Loss Factor	$\tan\delta/\mu_i$	$10^{-6}$	10kHz	$< 0.25\text{mT}$	25°C	$< 1.24$
			100kHz		25°C	$< 23$
Saturation Flux Density	Bs	mT	10kHz	H = 1200A/m	25°C	370
					100°C	285
Remanence	Br	mT	10kHz	H = 1200A/m	25°C	240
					100°C	140
Coercivity	Hc	A/m	10kHz	H = 1200A/m	25°C	-
					100°C	-
Temperature Factor of Permeability	$\alpha_F$	$10^{-6}/^\circ\text{C}$	10kHz	$< 0.25\text{ mT}$	5 ~ 25°C	$< 1.1$
					25 ~ 55°C	$< 5.8$
Hysteresis Material Constant	$\eta_B$	$10^{-6}/\text{mT}$	10kHz	1.5-3.0mT	25°C	$< 0.36$
Curie Temperature	Tc	°C				$\geq 130$
Resistivity	$\rho$	$\Omega\text{m}$				140
Density	d	$\text{g}/\text{cm}^3$				4.95

Note: Material characteristics are typical for a toroid core.

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

	Symbol	Unit	Measuring Conditions			Low $\eta_B$ Material
			Freq.	Flux den.	Temp.	N4
Initial Permeability	$\mu_i$		$\leq 10$ kHz	0.25mT	25°C	2500 $\pm$ 25%
Relative Loss Factor	$\tan\delta/\mu_i$	$10^{-6}$	10kHz	$< 0.25$ mT	25°C	$< 7$
			100kHz		25°C	$< 3$
Saturation Flux Density	Bs	mT	10kHz	H = 1200A/m	25°C	450
					100°C	320
Remanence	Br	mT	10kHz	H = 1200A/m	25°C	180
					100°C	150
Coercivity	Hc	A/m	10kHz	H = 1200A/m	25°C	14
					100°C	9
Temperature Factor of Permeability	$\alpha_f$	$10^{-6}/^\circ\text{C}$	10kHz	$< 0.25$ mT	5 ~ 25°C	$< 1.3$
					25 ~ 55°C	$< 1.3$
Hysteresis Material Constant	$\eta_B$	$10^{-6}/\text{mT}$	10kHz	1.5-3.0mT	25°C	$< 0.6$
Curie Temperature	Tc	°C				$\geq 170$
Resistivity	$\rho$	$\Omega\text{m}$				7.50
Density	d	$\text{g}/\text{cm}^3$				4.70

Note: Material characteristics are typical for a toroid core.  
 Product specification will differ from these data due to the influence of geometry and size.

