

## Material Characteristics (4)

	Symbol	Unit	Measuring Conditions			High Frequency Low Loss Materials					
			Freq.	Flux den.	Temp.	P5	P51	P52	P53	P61	P63 <b>NEW</b>
Initial Permeability	$\mu_i$		≤ 10kHz	0.25mT	25°C	2000 ± 25%	1500 ± 25%	2000 ± 25%	1200 ± 25%	900 ± 25%	900 ± 25%
Amplitude Permeability	$\mu_a$		25kHz	200mT	25°C	> 4000	> 2500	> 4000	> 1900	> 1700	> 1700
					100°C	> 4000	> 2500	> 4000	> 2000	> 1800	> 1800
Power Loss	Pv	KW/m <sup>3</sup>	300kHz	100mT	25°C	600	410	510	350	-	-
					100°C	350	370	450	310	-	-
			500kHz	50mT	25°C	220	200	150	80	-	-
					100°C	250	100	140	60	-	-
			700kHz	50mT	25°C	600	300	300	-	-	-
					100°C	550	250	350	-	-	-
			1MHz	50mT	25°C	-	600	750	300	250	80
					100°C	-	600	1000	300	110	80
			2MHz	80mT	25°C	-	-	-	-	-	1600
					100°C	-	-	-	-	-	2000
			3MHz	10mT	25°C	-	-	-	-	50	20
					100°C	-	-	-	-	50	20
			3MHz	30mT	25°C	-	-	-	-	450	200
					100°C	-	-	-	-	370	250
			5MHz	9mT	25°C	-	-	-	-	150	80
					100°C	-	-	-	-	170	80
Saturation Flux Density	Bs	mT	10kHz	H = 1200A/m	25°C	470	490	500	515	515	540
					100°C	350	400	400	420	430	450
Remanence	Br	mT	10kHz	H = 1200A/m	25°C	135	215	140	180	200	205
					100°C	70	125	110	120	135	115
Coercivity	Hc	A/m	10kHz	H = 1200A/m	25°C	17	35	21	38	50	50
					100°C	10	27	18	33	40	40
Hysteresis Material Constant	$\eta_B$	10 <sup>-6</sup> /mT	10kHz	1.5-3.0mT	25°C	< 1	< 1	< 1	< 1	< 1	< 1
Disaccommodation Factor	D <sub>F</sub>	10 <sup>-6</sup>	10kHz	< 0.25 mT	25°C	< 2	< 2	< 2	< 2	< 2	< 2
Curie Temperature	T <sub>c</sub>	°C				≥ 220	≥ 250	≥ 250	≥ 280	≥ 280	≥ 280
Resistivity	$\rho$	Ωm				6.40	12.00	6.50	10.00	10.00	10.00
Density	d	g/cm <sup>3</sup>				4.70	4.85	4.85	4.80	4.80	4.80

Note: Material characteristics are typical for a toroid core.

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