

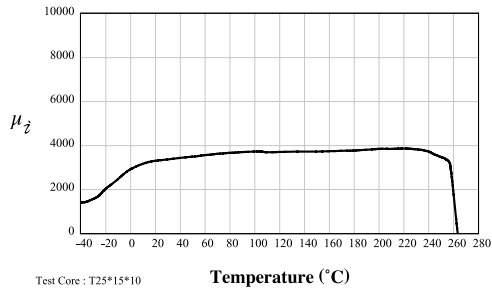
Material Characteristics

WCM-F200

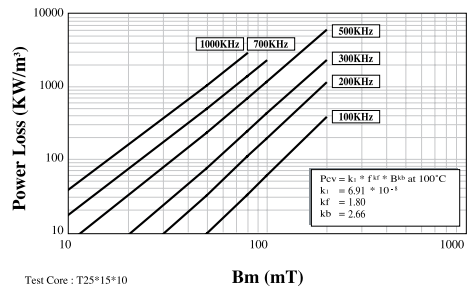
Characteristics	Symbol	Unit	Measuring Conditions		Low Loss Materials	
			Freq.	Flux den.	Temp.	P47
Initial Permeability	μ_i	-			25 °C	3000 ±25%
Amplitude Permeability	μ_a	-	25kHz	200mT	25 °C 100 °C	> 5000 > 5000
Power Loss	P_v	kw/m ³	100kHz	200mT	25 °C 60 °C 100 °C 120 °C	430 390 360 380
Saturation Flux Density	B_{ms}	mT	10KHz	H = 1200A/m	25 °C 100 °C	520 420
Remanence	B_{rms}	mT	10KHz	H = 1200A/m	25 °C 100 °C	85 70
Coercivity	H_c	A/m	10KHz	H = 1200A/m	25 °C 100 °C	10 7
Hysteresis Material Constant	η_B	10 ⁻⁶ mT	10KHz	1.5-3.0mT	25 °C	<0.6
Disaccommodation Factor	DF	10 ⁻⁶	10KHz	< 0.1mT	25 °C	<1
Curie Temperature	T_c	°C				>220
Resistivity	ρ	Ωm				5.00
Density	d	g/cm ³				4.90

Test core: OD=25mm TH=8mm ID=15mm

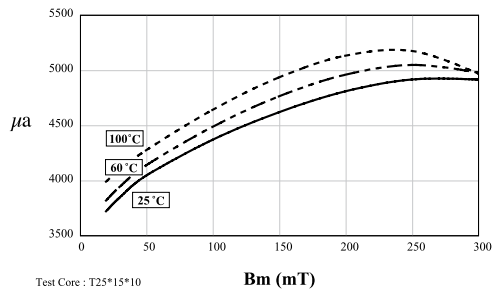
Initial Permeability V.S. Temperature



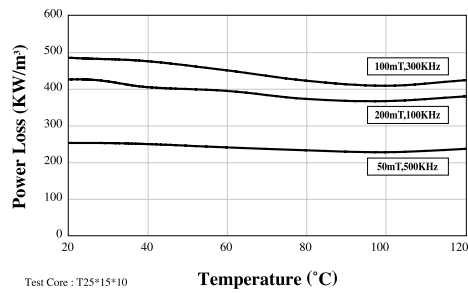
Power Loss V.S. Temperature/Flux Density/Frequency



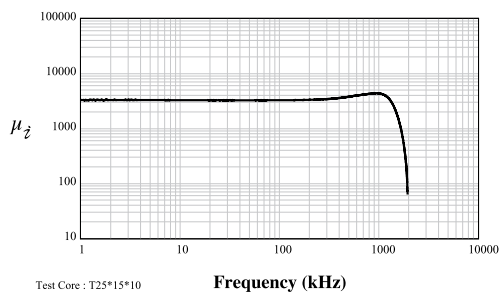
Amplitude Permeability V.S. Flux Density (Bm)



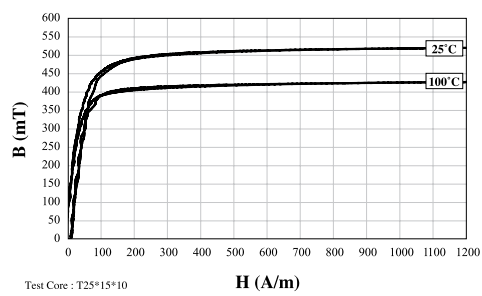
Power Loss V.S. Temperature



Initial Permeability V.S. Frequency



Saturation Flux Density V.S. Magnetic Field



Material Characteristics

WCM-FM400

Characteristics	Symbol	Unit	Measuring Conditions			Low Loss Materials
			Freq.	Flux den.	Temp.	P63
Initial Permeability	μ_i	-	$\leq 10\text{kHz}$	0.25mT	25°C	900 $\pm 25\%$
Amplitude Permeability	μ_a	-	25kHz	200mT	25°C 100 °C	> 1700 > 1800
Power Loss	Pv	kw/m ³	100kHz	50mT	25°C 100 °C	80 80
				80mT	25°C 100 °C	1600 2000
				10mT	25°C 100 °C	20 20
				30mT	25°C 100 °C	200 250
				90mT	25°C 100 °C	80 80
Saturation Flux Density	Bms	mT	10KHz	H = 1200A/m	25 °C 100 °C	540 450
Remanence	Brms	mT	10KHz	H = 1200A/m	25 °C 100 °C	205 115
Coercivity	Hc	A/m	10KHz	H = 1200A/m	25 °C 100 °C	50 40
Hysteresis Material Constant	η_B	10 ⁻⁶ mT	10KHz	1.5-3.0mT	25 °C	<1
Disaccommodation Factor	DF	10 ⁻⁶	10KHz	< 0.25mT	25 °C	<2
Curie Temperature	Tc	°C				≥ 280
Resistivity	ρ	Ωm				10.00
Density	d	g/cm ³				4.80

Test core: OD=25mm TH=8mm ID=15mm

	Symbol	Unit	Measuring Conditions			High Frequency Low Loss Material
			Freq.	Flux den.	Temp.	P63
Initial Permeability	μ_i		≤ 10 kHz	0.25mT	25°C	900 \pm 25%
Amplitude Permeability	μ_a		25kHz	200mT	25°C	> 1700
					100°C	> 1800
Power Loss	Pv	KW/m ³	1MHz	50mT	25°C	80
					100°C	80
			2MHz	80mT	25°C	1600
					100°C	2000
			3MHz	10mT	25°C	20
					100°C	20
			3MHz	30mT	25°C	200
100°C	250					
5MHz	9mT	25°C	80			
		100°C	80			
Saturation Flux Density	Bs	mT	10kHz	H = 1200A/m	25°C	540
Remanence	Br	mT	10kHz	H = 1200A/m	25°C	205
					100°C	115
Coercivity	Hc	A/m	10kHz	H = 1200A/m	25°C	50
					100°C	40
Hysteresis Material Constant	η_b	10 ⁻⁹ /mT	10kHz	1.5-3.0mT	25°C	< 1
Disaccommodation Factor	Ds	10 ⁻⁶	10kHz	< 0.25 mT	25°C	< 2
Curie Temperature	Tc	°C				≥ 280
Resistivity	ρ	Ω m				10.00
Density	d	g/cm ³				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.

