

MAGNETIZABLE ASPHALT

MA80™



MAGMENT

August
2023

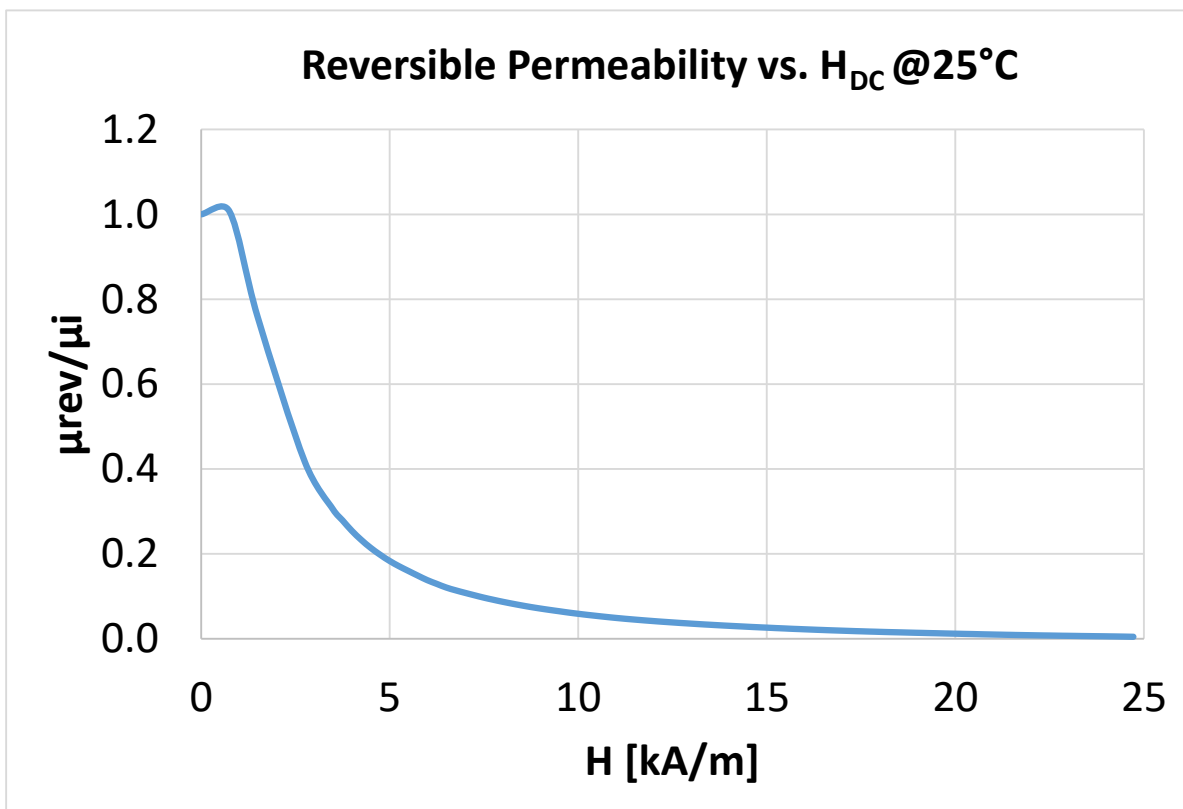
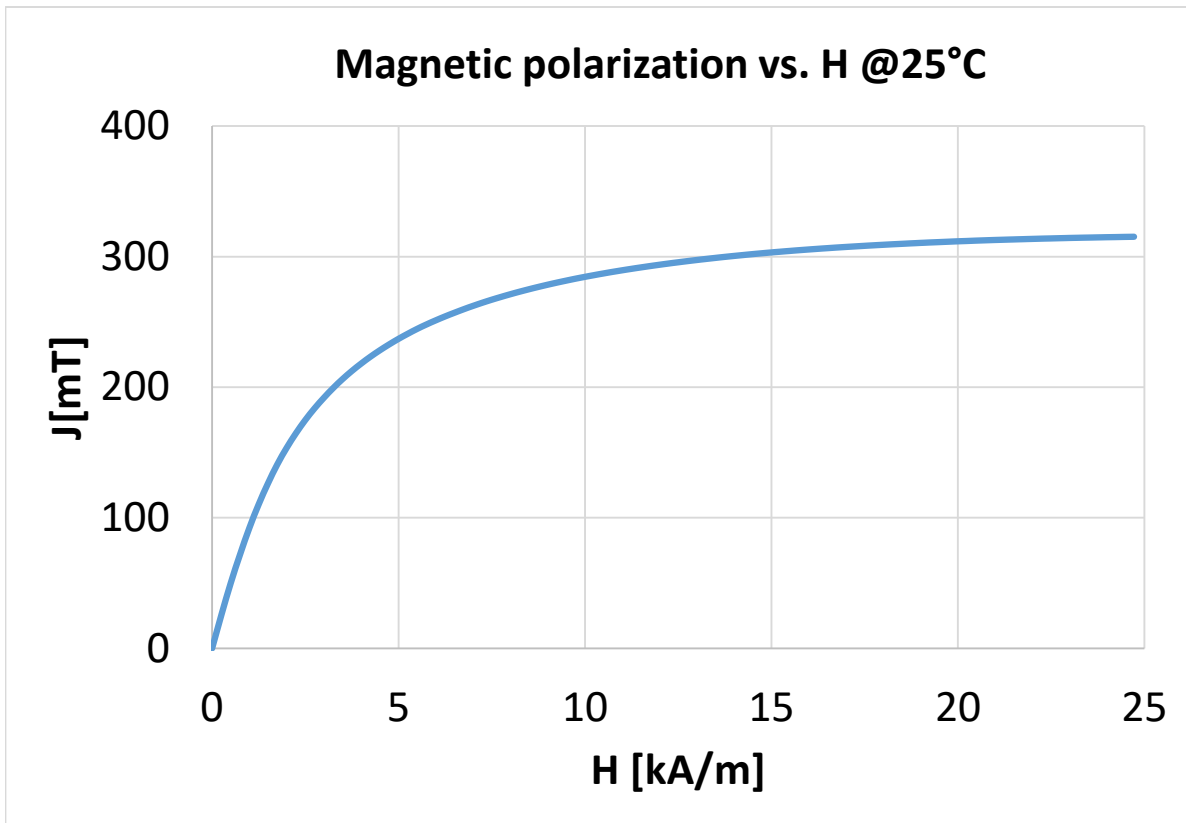
MATERIAL DATA SHEET

Material Properties

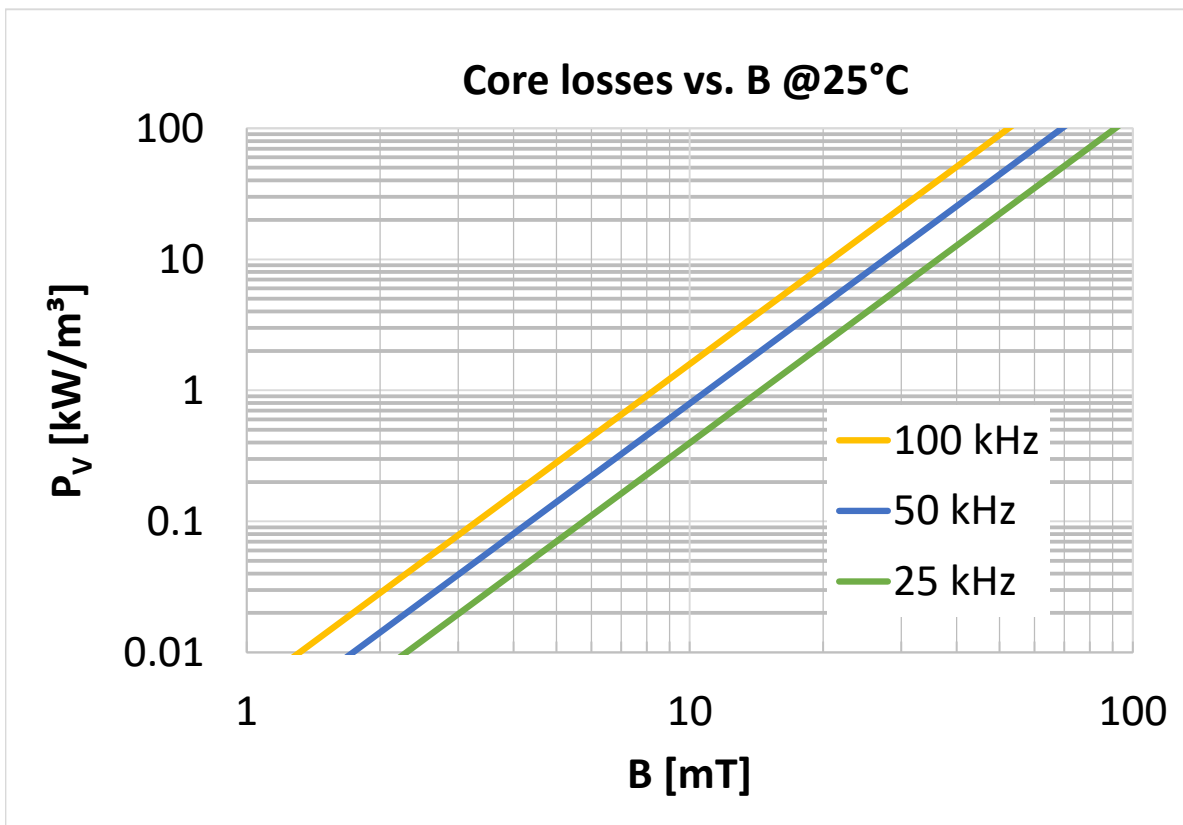
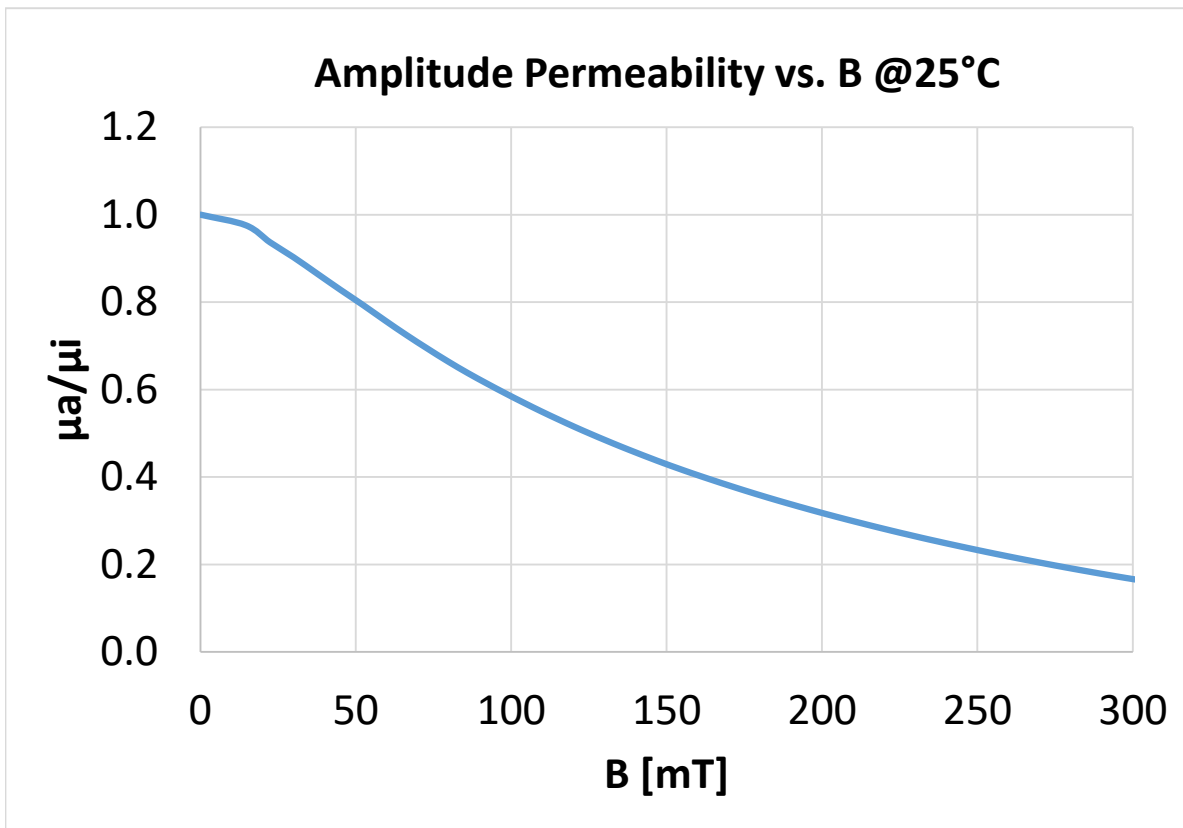
Initial permeability	25°C	μ_i		80 ± 20%
Saturation @H=8 kA/m (100 Oe)	25°C	Jmax	[mT]	320
	100°C	Jmax	[mT]	290
Coercitive field strength	25°C	H _c	[A/m]	25
Curie-Temperature		T _c	[°C]	> 210
Resistivity	DC	ρ	[Ω m]	20
Density		γ	[kg/m ³]	4000
Relative loss factor	@1 MHz	tan δ/μ_i	[10 ⁻³]	< 2.5
Relative temperature coefficient	-40°C...150°C	α_F	[10 ⁻⁶ /K]	< 50
Hysteresis material constant	10kHz	η_B	[10 ⁻⁶ /mT]	< 7
DC-Bias (percent permeability change)	@2kA/m (25 Oe)	μ_{rev}/μ_i		60%
	@4kA/m (50 Oe)	μ_{rev}/μ_i		32%
Realtive core losses	@ 85KHz, 50 mT	P _v	[kW/m ³]	80
Specific heat		c _p	[J/kg K]	700
Thermal conductivity		λ	[W/mK]	5
Linear expansion coefficient		$\Delta l/l$	[10 ⁻⁶ /K]	12

Magnetic parameters measured on R250/50 ring cores in accordance with IEC60401-3 & IEC62044-1,-2, and -3.

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