

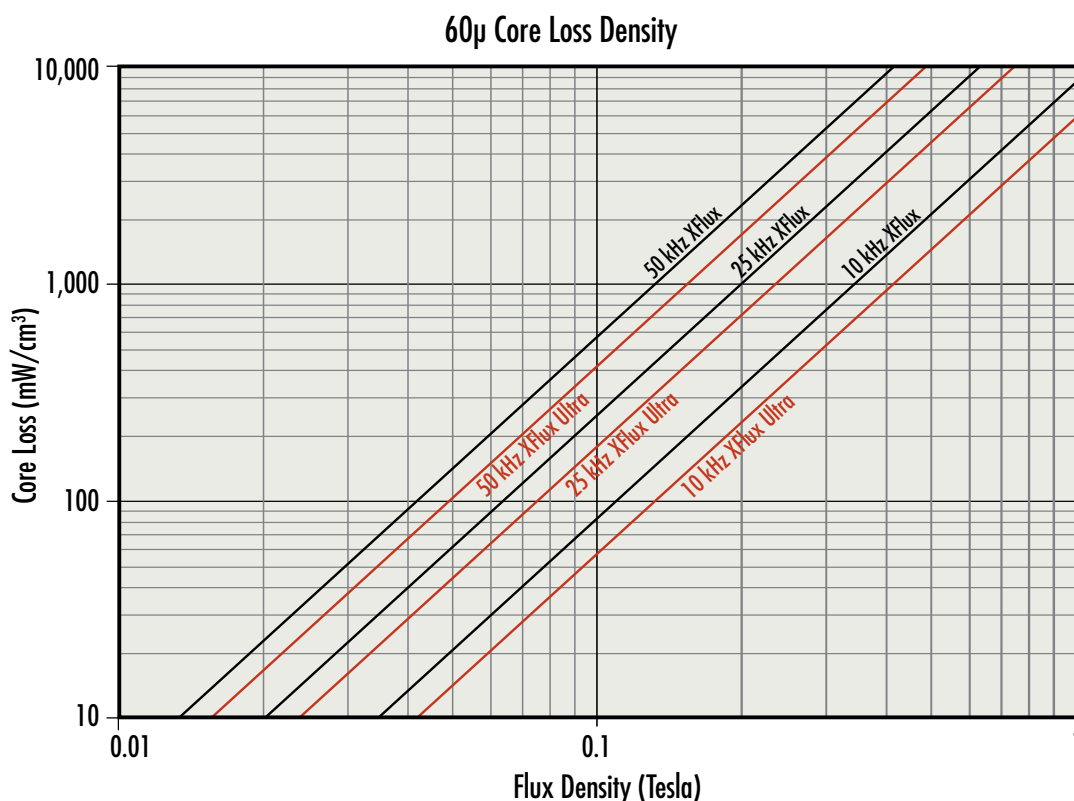


# XFlux<sup>®</sup> Ultra Powder Cores



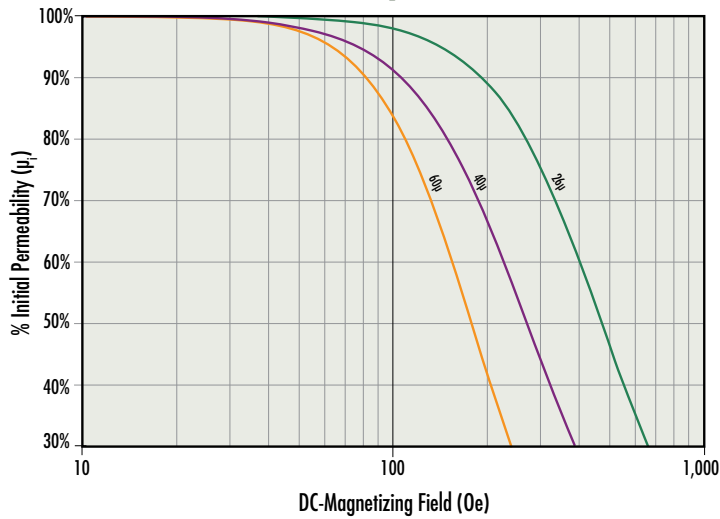
Magnetics' XFlux<sup>®</sup> Ultra powder cores offer the same high saturation found in standard silicon-iron XFlux while providing a 20% improvement in core loss. Applications include high efficiency Uninterruptible Power Supplies (UPS), high power SMPS, and Power Factor Correction (PFC) for On-Board Chargers (OBC).

Currently available in 26 $\mu$ , 40 $\mu$ , and 60 $\mu$  in toroids, E cores, EQ cores, LP cores, U cores, Blocks, and Cylinders.



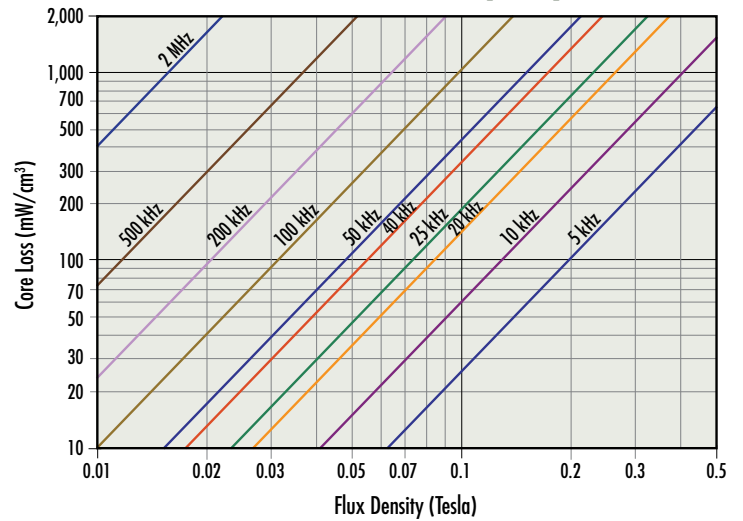
60 $\mu$	Perm vs. DC Bias (Oer)		Core Loss (mW/cm <sup>3</sup> )
	80%	50%	W 100 mT, 50 kHz
<b>XFlux<sup>®</sup> Ultra</b>	<b>110</b>	<b>180</b>	<b>450</b>
XFlux <sup>®</sup>	100	170	575

## Permeability vs. DC Bias



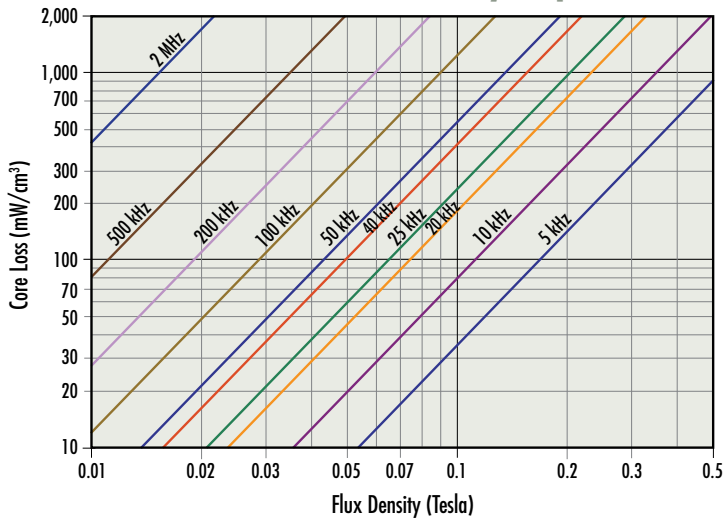
$\frac{\mu}{\mu_i} \times 100 = \frac{1}{(a + bH^c)}$		a	b	c
	26μ	0.01	2.699E-09	2.454
	40μ	0.01	1.843E-08	2.358
	60μ	0.01	4.483E-09	2.815

## Core Loss Density 26 $\mu$



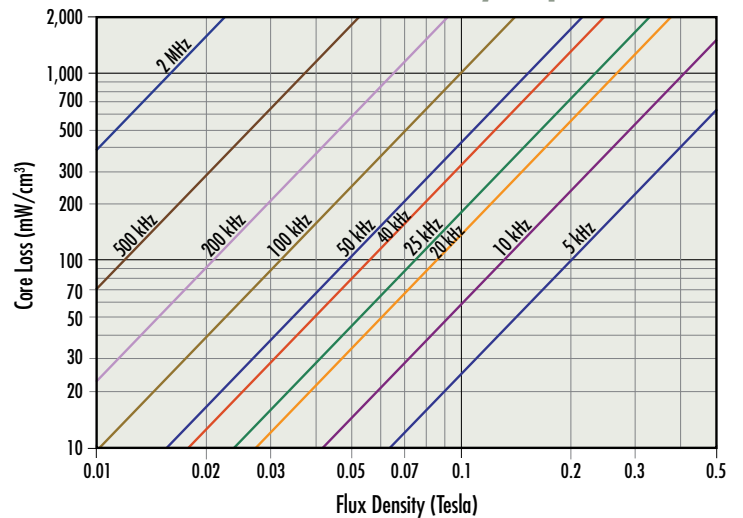
$P = a(B^b)(f^c)$			
	a	b	c
26 $\mu$	363.07	2.015	1.236

## Core Loss Density 40 $\mu$



$P = a(B^b)(f^c)$			
	a	b	c
40 $\mu$	538.04	2.015	1.190

## Core Loss Density 60 $\mu$



$P = a(B^b)(f^c)$			
	a	b	c
60 $\mu$	348.97	2.015	1.236



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