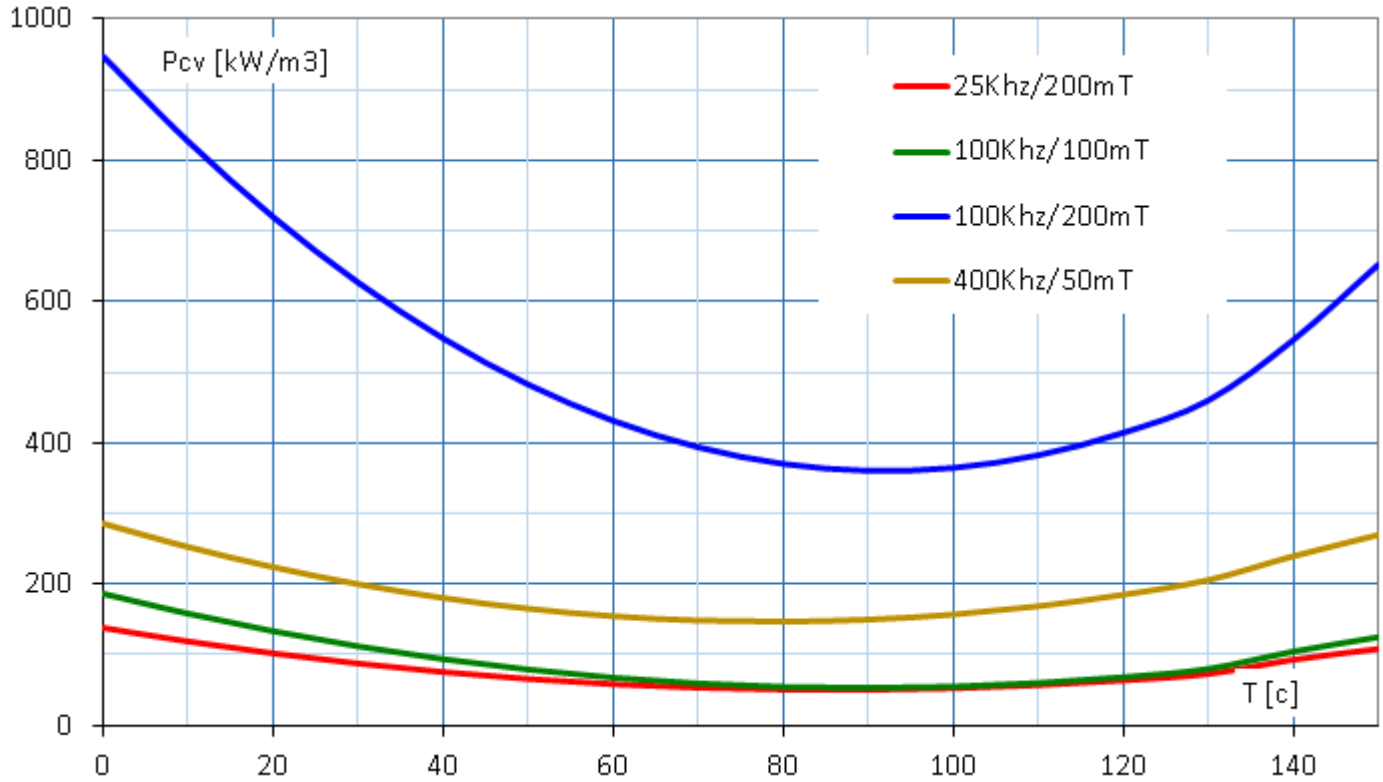


	Conditions	Value	Unit
μ_i	25°C 100Khz 0.1mT	2000+/-25%	
B	25°C, 3000 A/m	≈ 510	mT
	100°C, 3000 A/m	≈ 400	
P _{cv}	100°C ,100Khz, 100mT	≈ 40	kW/m ³
	100°C ,100Khz, 200mT	≈ 350	
	100°C ,400Khz, 50mT	≈ 150	
ρ	25°C Resistivity	≈ 5	Ω m
T _c		≥ 225	Celsius
Density		≈ 4850	Kg/m ³
As tested on T 29-19-15			

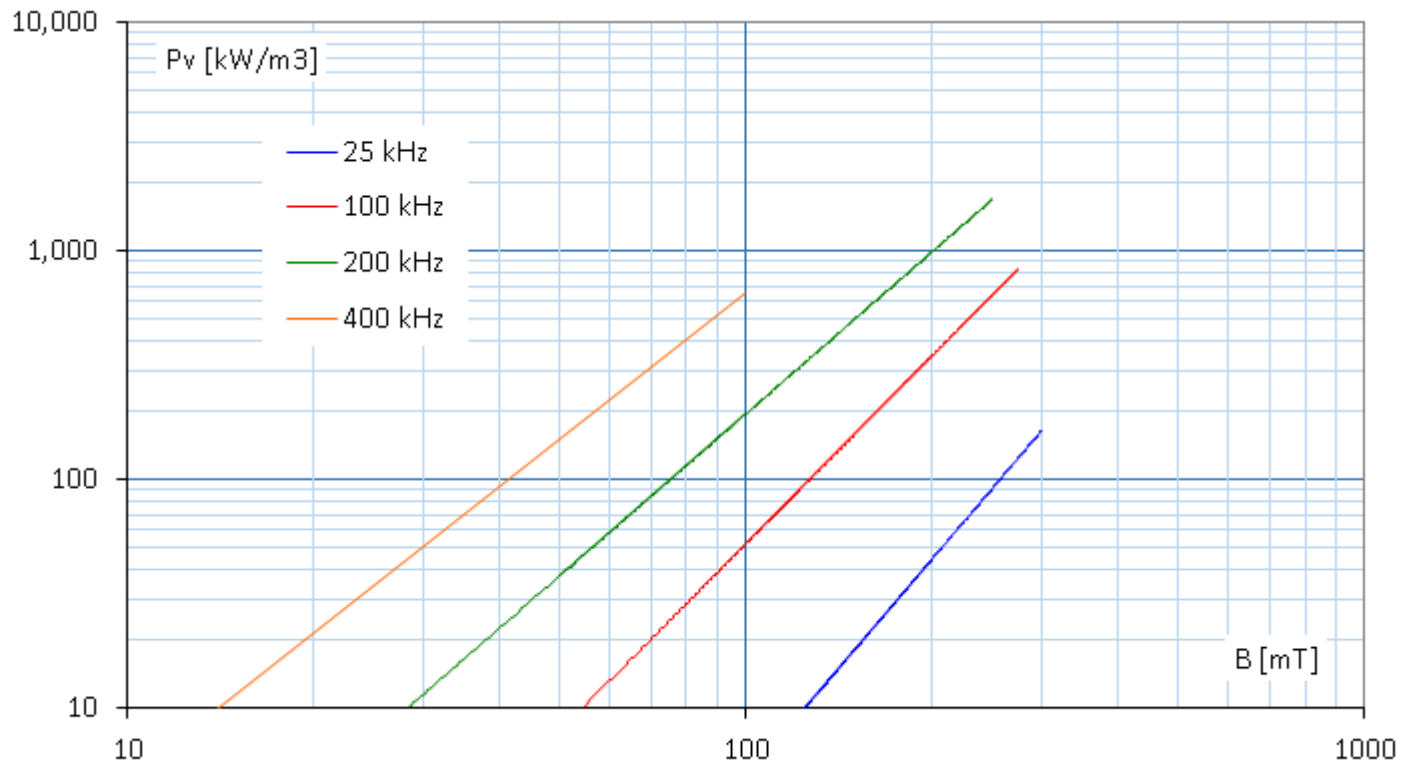
500Khz material with low losses at higher flux density.
Ideal for medium to large power transformers and inductors

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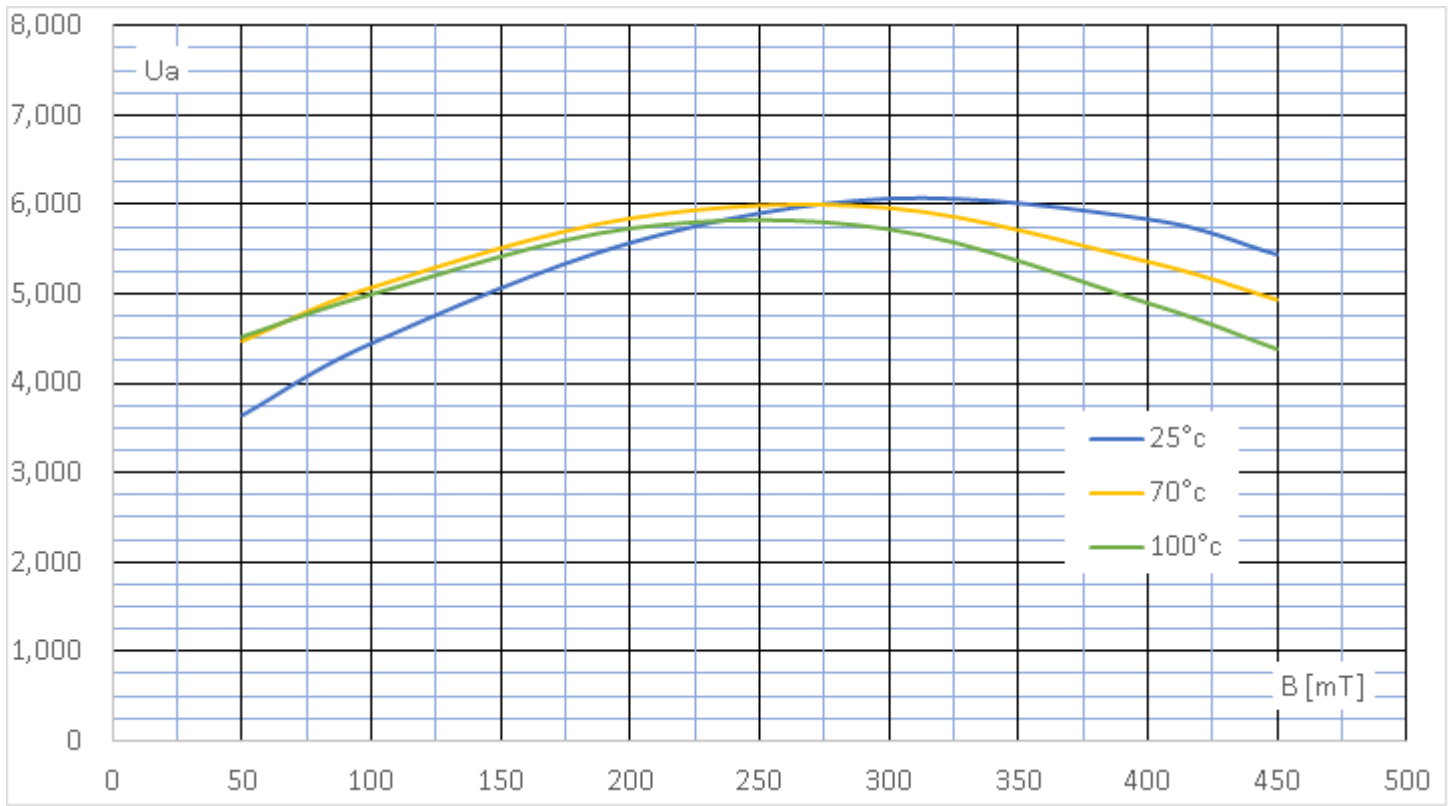
CORE LOSS DENSITY vs TEMPERATURE



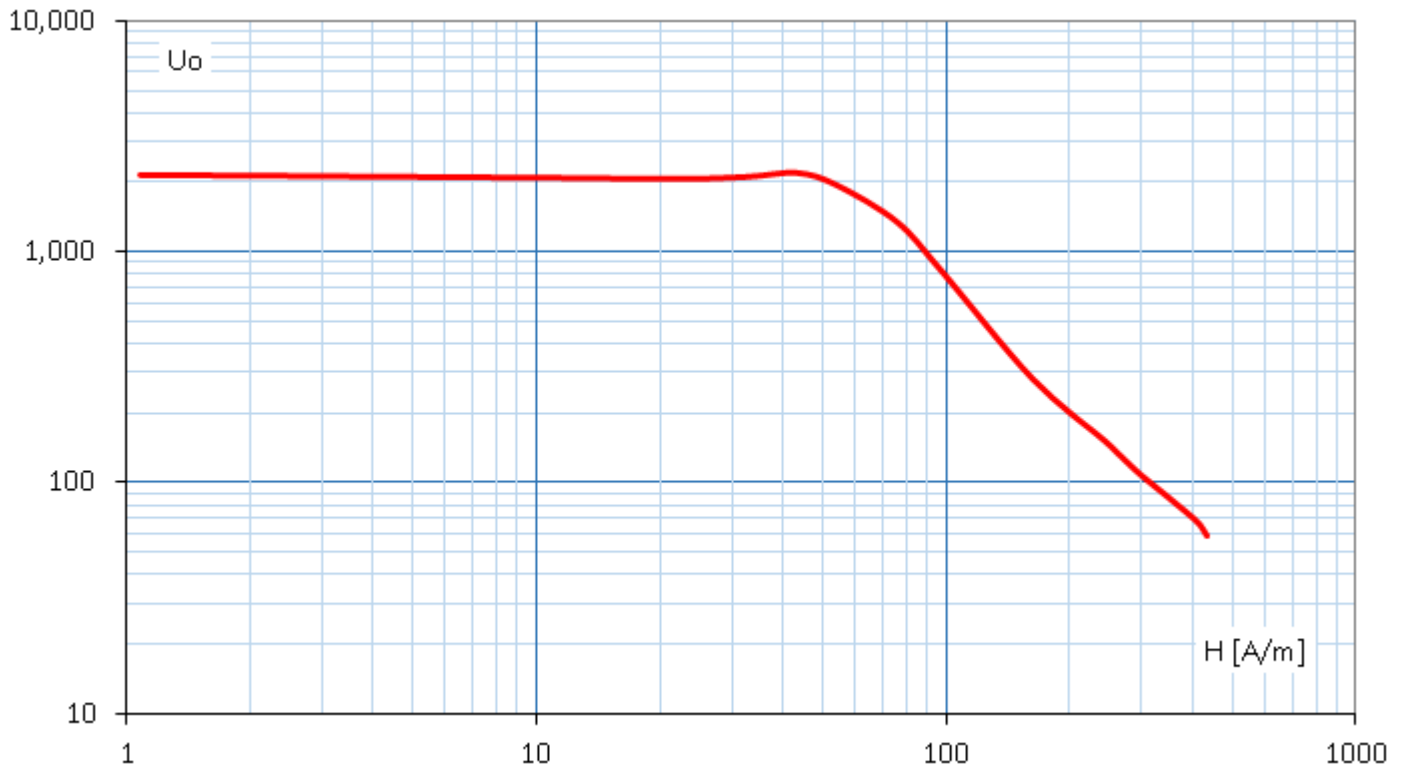
CORE LOSS DENSITY vs TEMPERATURE



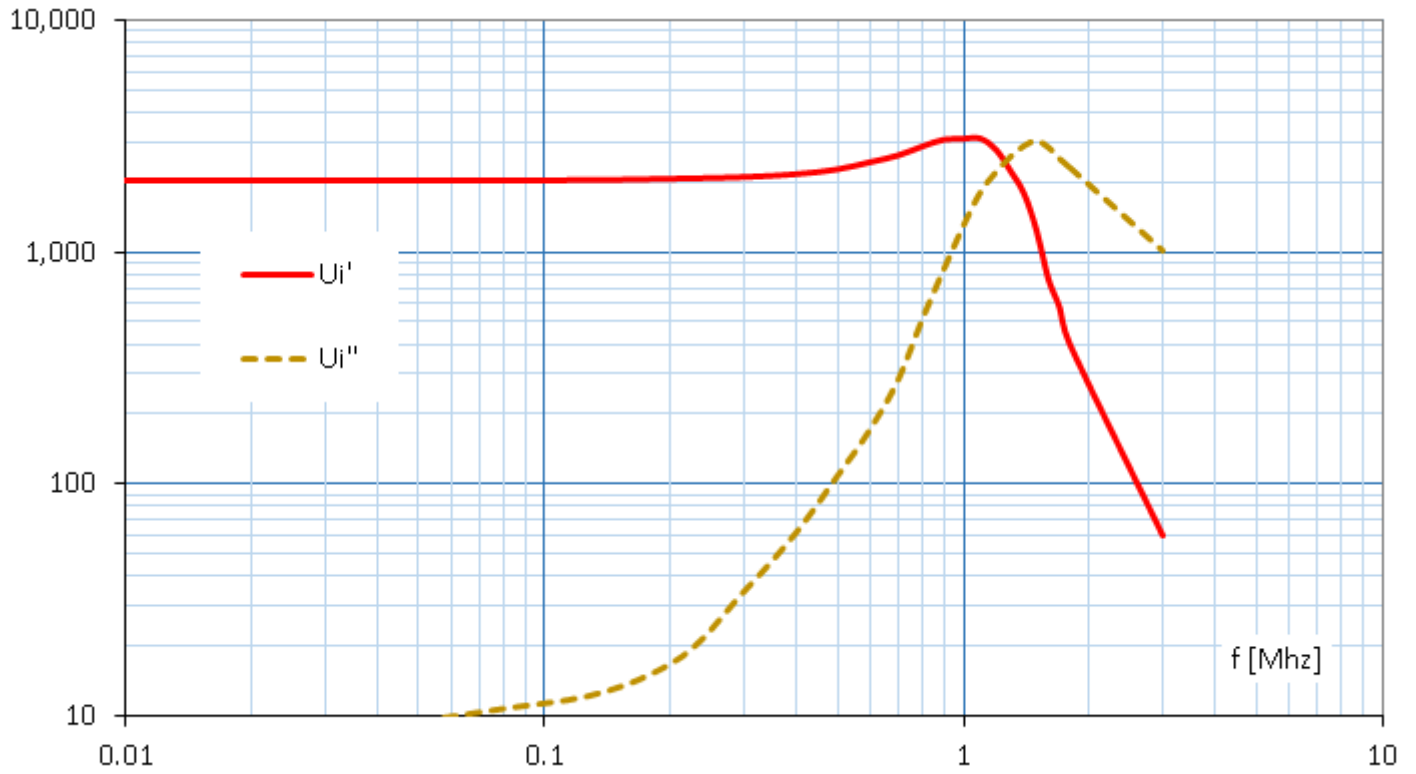
AMPLITUDE PERMEABILITY vs PEAK FLUX DENSITY



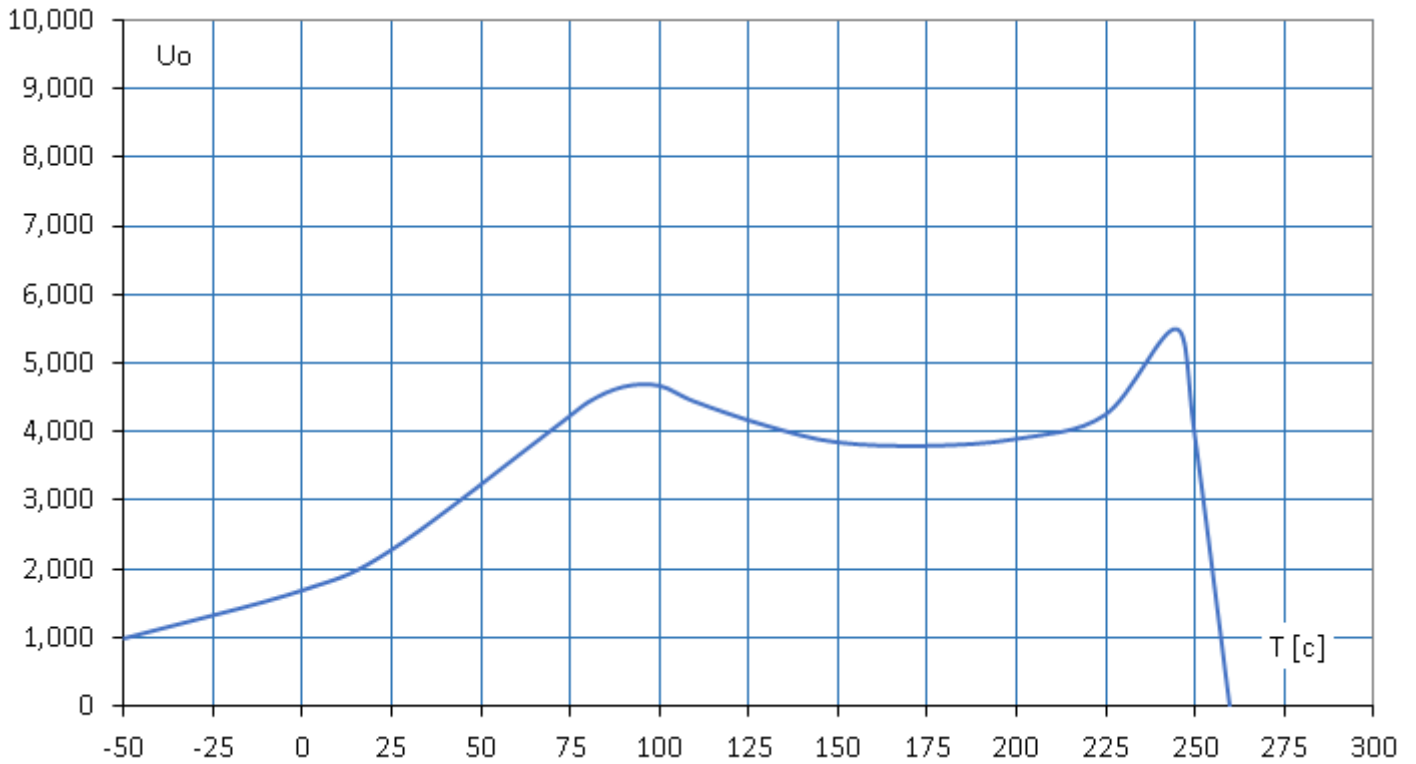
INITIAL PERMEABILITY vs MAGNETIZING FORCE



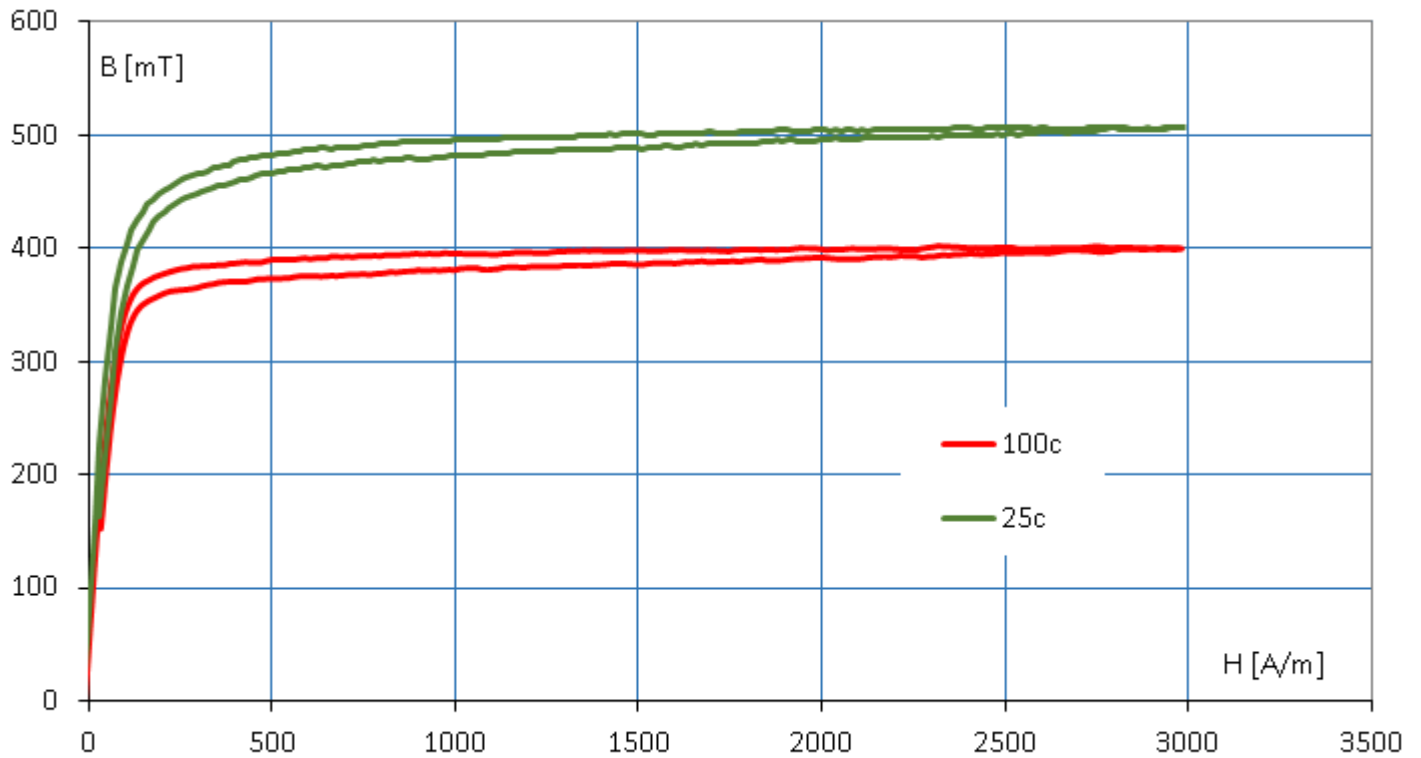
COMPLEX PERMEABILITY vs FREQUENCY



INITIAL PERMEABILITY vs TEMPERATURE



FLUX DENSITY vs MAGNETIZING FORCE



POWER LOSS EQUATION

Steinmetz Coefficients

$$P_{cv} = K_h F^\alpha B^\beta 10^{-7}$$

F = Frequency in kHz

B = Peak Flux Density in mT

	K_h	α	β
< 50 kHz	8.1928	1.4401	2.5122
< 300 kHz	4.0834	1.4401	2.6493
< 750 kHz	57.876	1.3716	2.3325

CROSS REFERENCE		
Manufacturer	Material	Considerations
Chilisen ¹	3C94	1
	3C96	1,3
	3F3	1,2
	3C80	1,2
	3C81	1,2
	3C90	1,2
	3C91	1
TDK ²	PC40	1
	PC44	1
	PC47	1,3
Epcos ³	N97	1
	N27	1
	N41	1
	N67	1,2
	N72	1,2
Mag Inc ⁴	R	1
	P	1

Considerations

- 1 AL value can vary with size and shape, check core AL value if critical.
- 2 Obsolete to the best of our knowledge.
- 3 Saturation @ 100c

Notes on manufacturers to the best of our knowledge.

- 1 . AKA, Yageo, Ferroxcube, Philips, Primarily manufacturing China.
- 2 . TDK, Manufactured in Japan and China.
- 3 . AKA, Siemens, EPCOS Inc a TDK Group Company, Manufactured in India and Czech Republic
- 4 . Primarily subcontracted for manufacture in China.

CONTACT

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Store: www.tscinternational.net

TSC INTERNATIONAL FAMILY OF COMPANIES

TSC
BOURGEOIS
SOFT MAGNETIC LAMINATIONS

F FERRITE
INTERNATIONAL
COMPANY
Mn Zn FERRITE CORES

Pyroferric
IRON POWDER CORES

History

Ferrite International was established 1985 as a division of Tempel Steel Company and was purchased in 1990 by Tempel Smith.

Quality Policy

To provide the highest value magnetic materials to our customers through a combination of exceptional quality, price, delivery and service.

Ferrite International is compliant to ISO 9000 1994.

International Environmental Regulatory Compliance

RoHS * REACH * ELV * WEEE * Halogen Free

Social Accountability Compliance

US Family and Medical Leave Act

US Fair Labor Standards Act

US Environmental Protection Agency

US Occupational Safety and Health Administration

US Clean Air Act

US Equal Employment Opportunity Commission

US National Primary Drinking Water Regulation

US Conflict Free Minerals

Warranty / Disclaimer

"TSC International" expressly warrants to the "Buyer" for whom it manufactures, sells and delivers product made of magnetic materials will conform to specifications and drawings as published within the product catalog. Buyer specifications that have not been approved by the International Electronic Commission shall be considered as a custom product, and will be warranted by TSC International in a separate written agreement.

There are no other express or implied warranties which extend beyond the above-referenced warranty of conformance to the specifications and specifically. TSC International does not warrant that any product will be merchantable or fit for the particular purpose for which the purchaser, its successors, agents or affiliates, intends to use product. Before using these products, buyer agrees to determine suitability of the product for their intended use or application.

Buyer shall notify TSC International in writing (and reasonable detail) of any defect in any product within thirty (30) days after the delivery date thereof. If products do not conform to the specification and TSC determines to its satisfaction that the parts are defective, and the defect is not due to miss-use, accident or improper application, buyer's remedy shall be limited, at TSC international's sole discretion, to either (1) The return of such product in exchange for the return of, or credit for any payment received by TSC International relating thereto; (2) The replacement of such product; or (3) The repair of such product. TSC International shall pay reasonable shipping costs incurred in connection with the return, replacement or repair of any defective product. Solution to resolve defective product shall be within (60) days after written receipt of written notice from the buyer of such defect.

TSC International shall not be liable for any incidental or consequential loss, damage, or expense (including without limitation, economic loss or lost profits) of buyer for any defective product sold and delivered to the buyer regardless or whether such loss, damage or expense results from breach of contract or warranty or commission of tort (including, without limitation, strict liability or negligence).

These products are not designed for use in life support appliances, devices or systems where malfunction of these products can reasonably be expected to result in personal injury, Buyers that are using or selling these products for use in such applications do so at their own risk and agree to indemnify TSC International for any damages resulting from such application.

TSC International reserves the right to makes changes without notice in order to improve design and supply the best possible product.