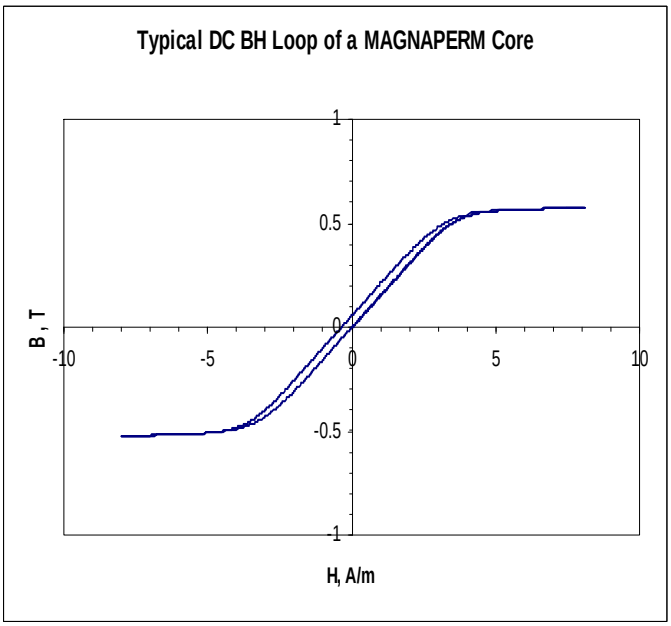
Magnaperm® High Permeability Toroidal Cores are manufactured with cobalt-based Metglas® amorphous alloy 2714A for high frequency applications.

These flat loop toroidal cores offer a unique combination of ultra-high permeability, high saturation flux density and extremely low core loss for electronic component designers.
These properties make Metglas® Magnaperm® cores ideal for a diverse range of applications such as:

- EMI common mode filtering
- Telecommunications & data communications interface transformers
- High accuracy current transformers
- High accuracy pulse transformers
- Ground fault protection devices

Standard sizes are available from 9.6 mm to 34.1 mm OD and the possibility of manufacturing custom sizes also exists. Core coatings meeting UL94V-0 and temperature class F are available upon request.



Benefits

- Higher initial permeability – which reduces the number of turns
- High permeability over a wide range of operating frequencies
- High attenuation – reduces the need for multi stage filtering
- Low profile – enabling weight and volume reduction up to 50%

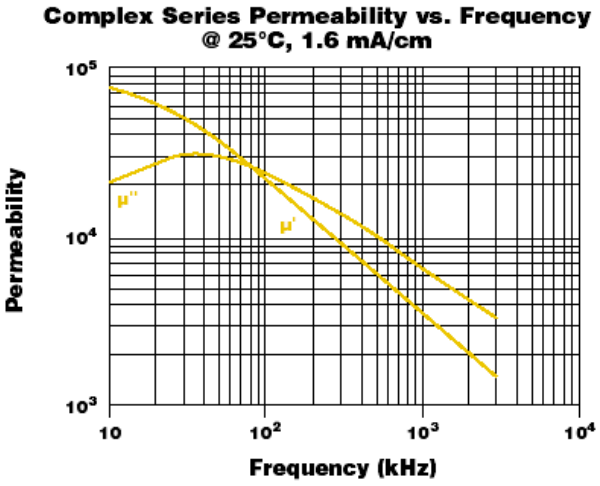
Physical Properties METGLAS® Alloy 2714A

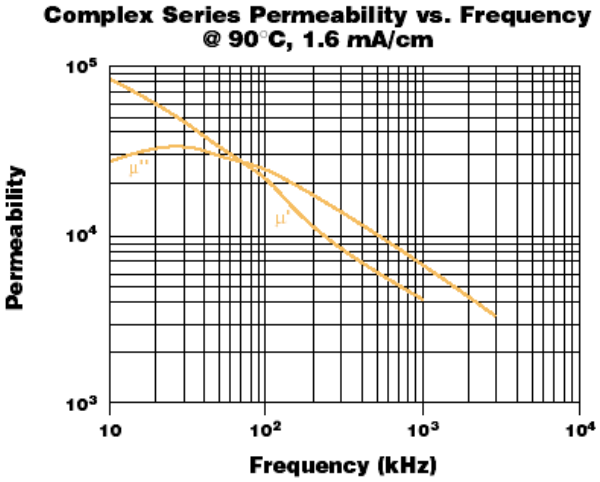
Ribbon Thickness (µm)	.18
Density (g/cm^3)	7.59
Thermal Expansion (ppm/°C)	12.7
Crystallization Temperature (°C)	560
Curie Temperature (°C)	225
Continuous Service Temperature (°C)	90
Tensile Strength (MN/m^2)	1k-1.7k
Elastic Modulus (GN/m^2)	100-110
Vicker's Hardness (50g load)	960

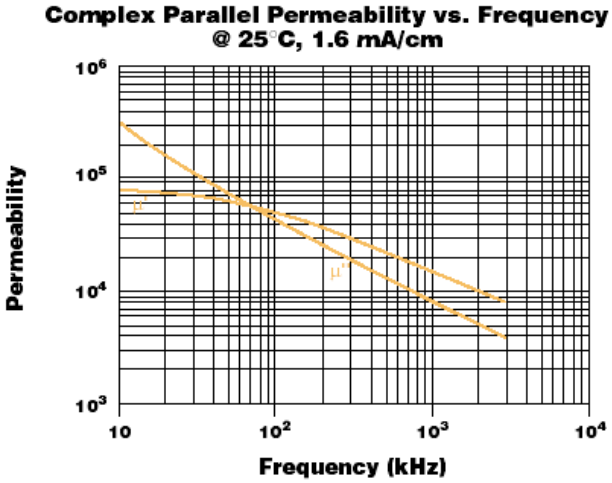
Magnetic Properties METGLAS® Magnaperm® Cores

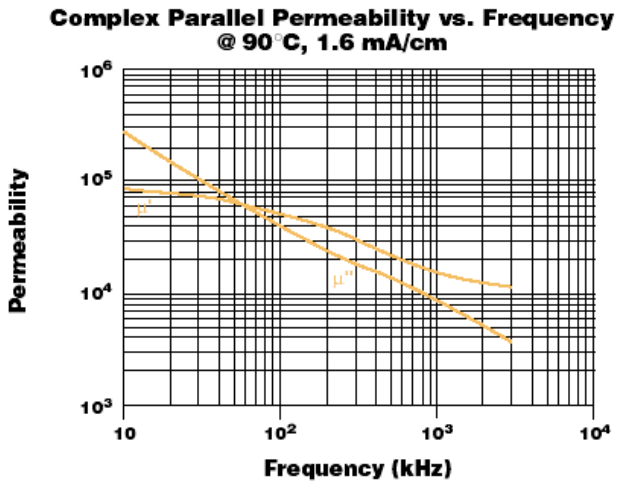
Saturation Flux Density (Tesla)	0.57
Permeability (µ @ 1 kHz, 2.0 mA/cm)	>72,000
Saturation Magnetostriction (ppm)	<<1
Electrical Resistivity (µΩ.cm)	142

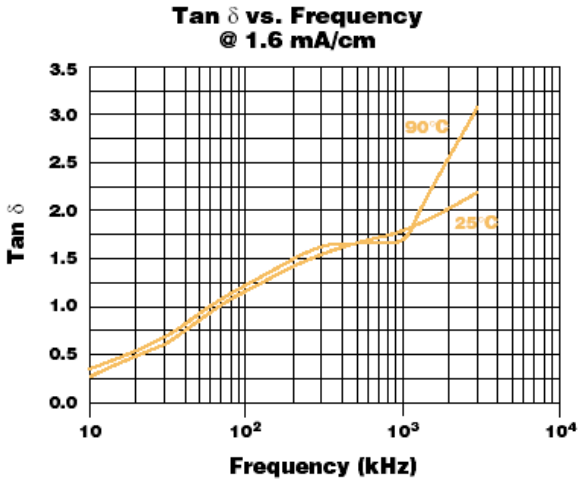
Copyright © 2003-2008 Metglas®, Inc.
All Rights Reserved
E-mail: ***metglas@metglas.com***
1-800-581-7654

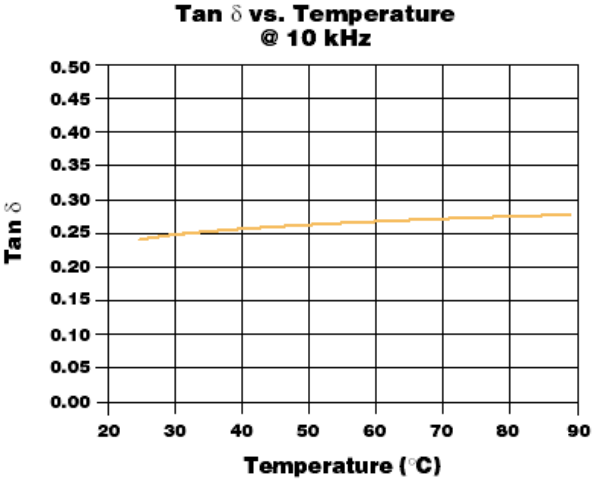








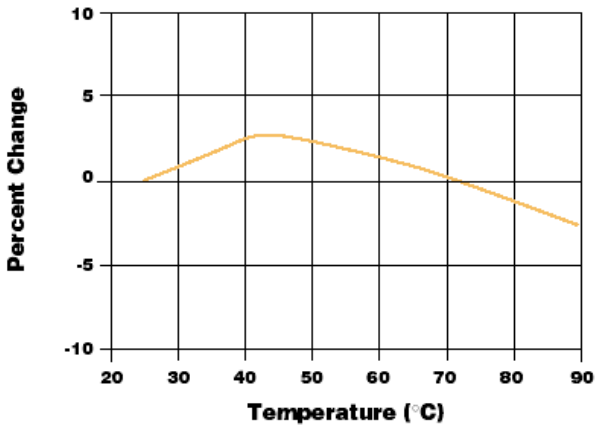




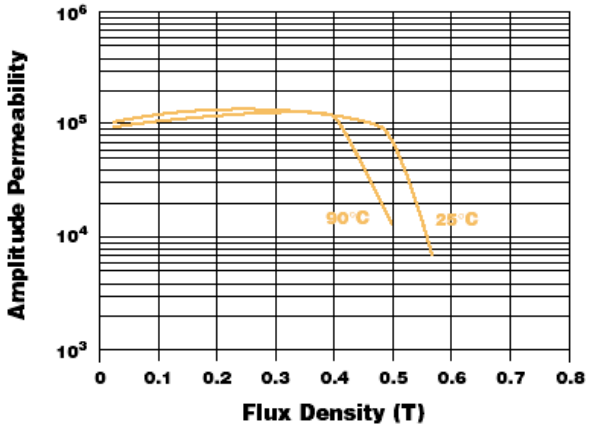
Copyright © 2003-2008 Metglas®, Inc.
All Rights Reserved

E-mail: *metglas@metglas.com*
1-800-581-7654

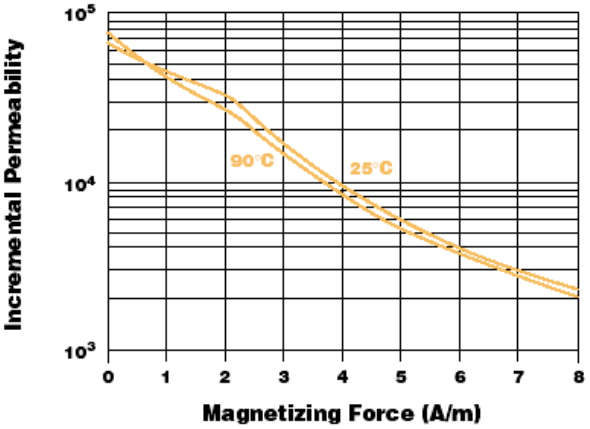
Percent Change of Permeability vs. Temperature @ 10 kHz



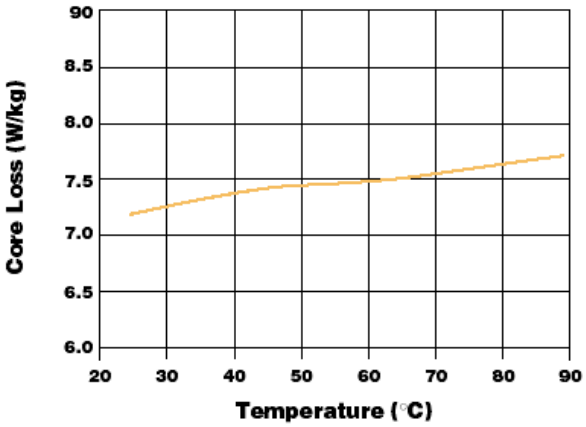
Amplitude Permeability vs. Flux Density @ 10 kHz



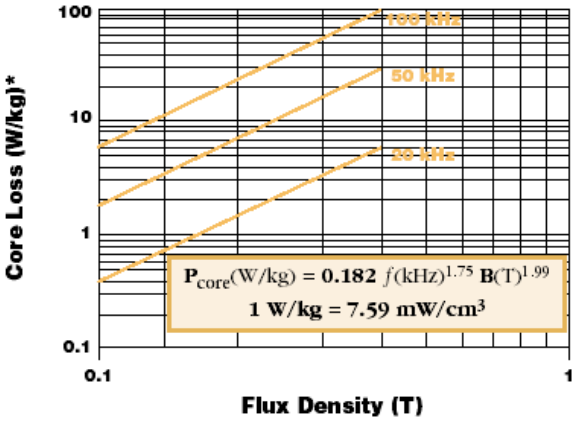
Incremental Permeability vs. dc Bias @ 10 kHz



Core Loss vs. Temperature @ 0.1 T/100 kHz

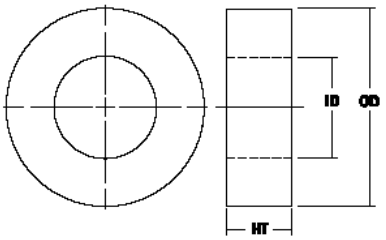


Core Loss vs. Flux Density† @ 25°C



Copyright © 2003-2008 Metglas®, Inc.
All Rights Reserved

E-mail: ***metglas@metglas.com***
1-800-581-7654



Ordering Information

Example:

MP1305X-4AF

- METGLAS Products
- Outside Diameter (OD)
- Height (HT)
- Flat Loop Core
- METGLAS Alloy 2714A

Case Material

Box Type (X)	Material	UL File No.	Flam. Rating UL 94	Elec. Rel. Temp. Index (UL746B)
P	DuPont Zytel® 70G33L	E41938	HB	120
L	DuPont Zytel® FR50	E41938	V-O	120
V	DuPont Zytel® FR530L	E69578	V-O	120

MAGNAPERM® High Permeability Cores

	CORE DIMENSION			Performance Parameters						
Core No.	**O.D.Max (mm)**	**I.D.Min (mm)**	**Ht. Max (mm)**	**lm (cm)**	**A_c (cm^2)**	**Vol (cm^3)**	**W_a (cm^2)**	**W_aA_c (cm^4)**	**Mass g**	**A_L* ($\mu H/N^2$)**
MP0805L4AF	9.60	4.04	6.34	2.12	0.066	0.14	0.13	0.008	1.11	28.3
MP0805P4AF	9.60	4.04	6.34	2.12	0.066	0.14	0.13	0.008	1.11	28.3
MP0805V4AF	9.60	4.04	6.34	2.12	0.066	0.14	0.13	0.008	1.11	28.3
MP1305L4AF	14.40	7.87	6.71	3.46	0.057	0.20	0.49	0.028	1.56	14.9
MP1305P4AF	14.40	7.87	6.71	3.46	0.057	0.20	0.49	0.028	1.56	14.9
MP1305V4AF	14.40	7.87	6.71	3.46	0.057	0.20	0.49	0.028	1.56	14.9
MP1405L4AF	15.82	7.87	6.71	3.67	0.083	0.30	0.49	0.040	2.41	20.4
MP1405P4AF	15.82	7.87	6.71	3.67	0.083	0.30	0.49	0.040	2.41	20.4
MP1405V4AF	15.82	7.87	6.71	3.67	0.083	0.30	0.49	0.040	2.41	20.4
MP1506L4AF	17.12	7.82	8.31	3.86	0.140	0.54	0.48	0.067	4.27	32.8
MP1506P4AF	17.12	7.82	8.31	3.86	0.140	0.54	0.48	0.067	4.27	32.8
MP1506V4AF	17.12	7.82	8.31	3.86	0.140	0.54	0.48	0.067	4.27	32.8
MP1805L4AF	20.83	10.80	6.76	4.88	0.108	0.53	0.92	0.099	4.17	20.1
MP1805P4AF	20.83	10.80	6.76	4.88	0.108	0.53	0.92	0.099	4.17	20.1
MP1805V4AF	20.83	10.80	6.76	4.88	0.108	0.53	0.92	0.099	4.17	20.1
MP1906L4AF	21.18	11.05	8.31	4.99	0.161	0.80	0.96	0.155	6.36	29.3
MP1906P4AF	21.18	11.05	8.31	4.99	0.161	0.80	0.96	0.155	6.36	29.3
MP1906V4AF	21.18	11.05	8.31	4.99	0.161	0.80	0.96	0.155	6.36	29.3
MP2008L4AF	22.23	11.05	10.36	5.15	0.248	1.28	0.96	0.238	9.72	43.5
MP2008P4AF	22.23	11.05	10.36	5.15	0.248	1.28	0.96	0.238	9.72	43.5
MP2008V4AF	22.23	11.05	10.36	5.15	0.248	1.28	0.96	0.238	9.72	43.5
MP2410L4AF	27.79	17.27	11.48	6.83	0.206	1.41	2.34	0.483	10.75	27.3
MP2410P4AF	27.79	17.27	11.48	6.83	0.206	1.41	2.34	0.483	10.75	27.3
MP2410V4AF	27.79	17.27	11.48	6.83	0.206	1.41	2.34	0.483	10.75	27.3
MP2510L4AF	27.79	17.27	11.48	7.01	0.249	1.74	2.34	0.583	13.28	32.1
MP2510P4AF	27.79	17.27	11.48	7.01	0.249	1.74	2.34	0.583	13.28	32.1
MP2510V4AF	27.79	17.27	11.48	7.01	0.249	1.74	2.34	0.583	13.28	32.1
MP2705L4AF	29.51	14.81	6.71	6.89	0.207	1.42	1.72	0.356	10.81	27.1
MP2705P4AF	29.51	14.81	6.71	6.89	0.207	1.42	1.72	0.356	10.81	27.1
MP2705V4AF	29.51	14.81	6.71	6.89	0.207	1.42	1.72	0.356	10.81	27.1
MP3210L4AF	34.95	19.86	11.48	8.58	0.388	3.33	3.10	1.202	25.20	40.9
MP3210P4AF	34.95	19.86	11.48	8.58	0.388	3.33	3.10	1.202	25.20	40.9
MP3210V4AF	34.95	19.86	11.48	8.58	0.388	3.33	3.10	1.202	25.20	40.9

Copyright © 2003-2008 Metglas®, Inc.
All Rights Reserved

E-mail: ***metglas@metglas.com***
1-800-581-7654

Contact Information:

USA

Metglas®, Inc.

440 Allied Drive
Conway, SC 29526
Tel: (800) 581-7654
Tel: (843) 349-7363
Fax: (843) 349-6815

ASIA

Hitachi Metals Hong Kong

Room 1107, West Wing,
Tsim Sha Tsui Centre,
66 Mody Road, TST East,
Hong Kong.
Tel: (852) 27227680
Fax: (852) 27227660

EUROPE

Hitachi Metals Europe

Immerman Strasse 14-16
D-40210 Duesseldorf, Germany
Tel: +49 211 160 09 - 11
Fax: +49 211 160 09 - 30

Copyright © 2003-2008 Metglas®, Inc.
All Rights Reserved