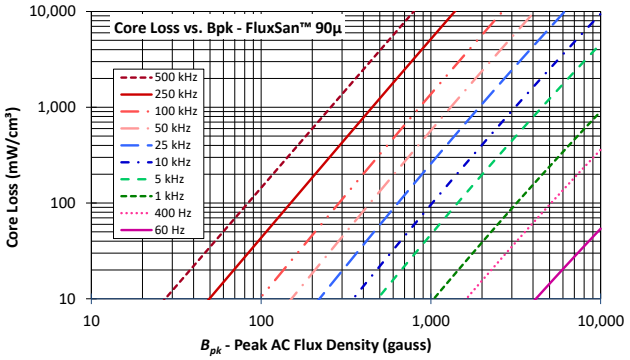
| Material: | FluxSan™ 90µ Toroid |
|---|---|

Revision 20201110 - Generated 2020-Nov-10

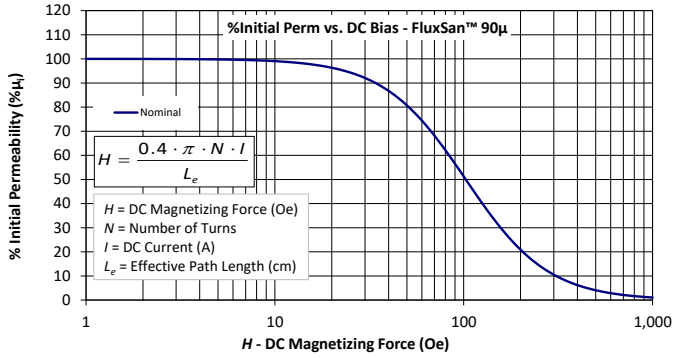
| | |
|---|---|
| µi (reference) | 090 |
| Typical AL tolerance | ± 8% |
| Density | 6.9 g/cm³ |
| Bsat | 17.8 kG |
| Core Loss (50kHz, 1000g) | 571 mW/cm³ (nom)<br>657 mW/cm³ (max) |
| %Perm at DC Bias (50 Oe) | 80.7% (nom)<br>74.4% (min) |




$$\text{Core Loss (mW/cc)} = \frac{f}{\frac{a}{B_{pk}{}^{3}} + \frac{b}{B_{pk}{}^{2.3}} + \frac{c}{B_{pk}{}^{1.65}}} + d \cdot B_{pk}{}^{2} \cdot f^{2}$$

where $B_{pk}$ expressed in gauss, $f$ in hertz, and:

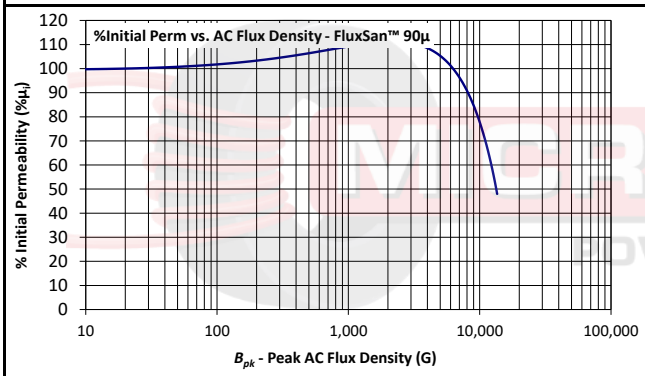
*a=4.222E+08, b=6.073E+08, c=2.905E+06, d=4.589E-14*




$$\%\mu_i = \frac{1}{a + b \cdot H^{c}} + d$$

where $H$ expressed in oersted, and:

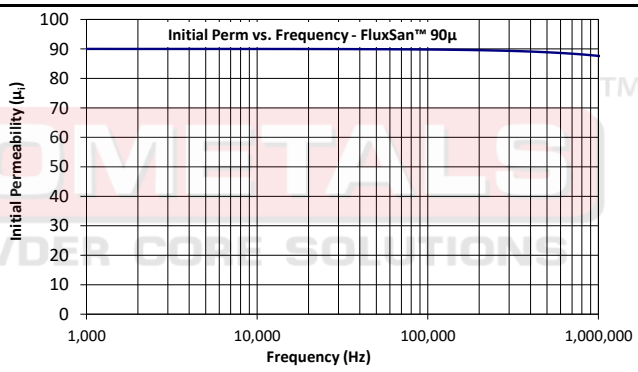
*a=1.000E-02, b=9.719E-07, c=1.995E+00, d=0.000E+00*




$$\%\mu_i = \frac{1}{\frac{1}{a + bB^{c}} + \frac{1}{dB^{e}} + \frac{1}{f}}$$

where $B_{pk}$ expressed in gauss, and:

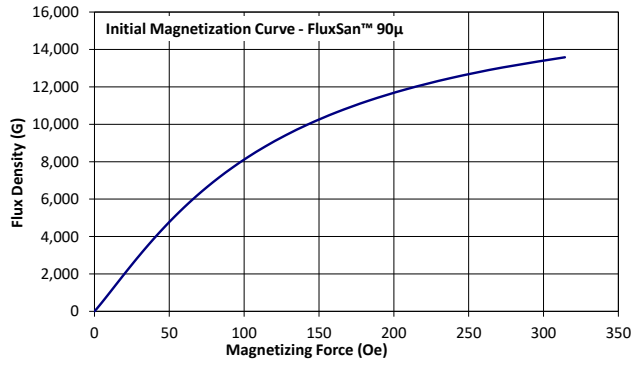
*a=5.183E+02, b=3.410E-01, c=1.054E+00, d=3.300E+09, e=-1.782E+00, f=1.239E+02*




$$\mu_i = \frac{1}{a + bf^{c}} + d$$

where $f$ expressed in hertz, and:

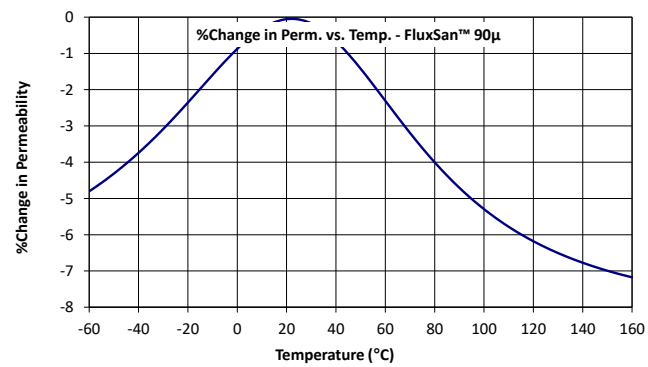
*a=1.111E-02, b=1.025E-10, c=1.078E+00, d=0.000E+00*




$$B_{pk} = \frac{\mu_i}{\frac{1}{H + aH^{b}} + \frac{1}{cH^{d}} + \frac{1}{e}}$$

where $B_{pk}$ expressed in gauss, $H$ in oersted, and:

*a=5.279E-02, b=1.672E+00, c=3.402E+01, d=6.576E-01, e=1.979E+02*




$$\%\left(\frac{\Delta\mu_i}{\mu_i}\right) = \frac{a + cT + eT^{2}}{1 + bT + dT^{2}}$$

where $T$ expressed in celsius, and:

*a=-8.751E-01, b=-1.104E-02, c=7.559E-02, d=2.073E-04, e=-1.711E-03*


Micrometals Arnold Powder Cores, A Division of Micrometals, Inc. - 5615 E. La Palma Ave., Anaheim, California 92807 USA
Ph: +1-714-970-9400, Toll Free in USA: +1-800-356-5977, Asia Pacific Sales: +852 3106 3736
www.MicrometalsArnoldPowderCores.com