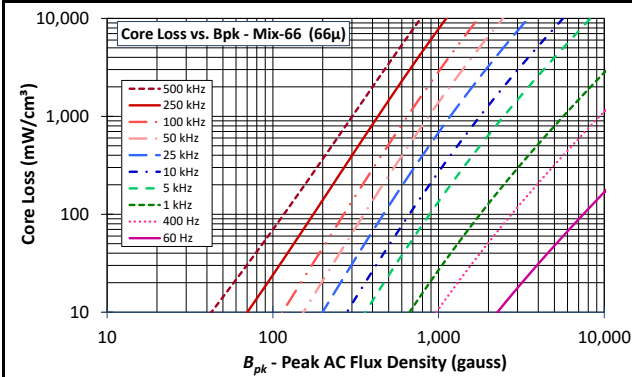




| | |
|-------------|------------|
| Mix: | -66 |
|-------------|------------|

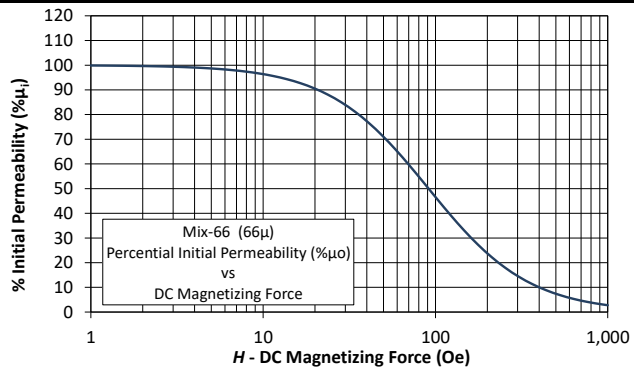
Revision 20190524 - Generated 2019-May-24

| | |
|--------------------------|--|
| μ_i (reference) | 66 |
| Typical AL tolerance | $\pm 10\%$ |
| Color Code | Brown/Brown |
| Density | 6.2 g/cm ³ |
| Bsat | 16.2kG |
| Core Loss (100kHz, 140g) | 17 mW/cm ³ (nom) 20 mW/cm ³ (max) |
| %Perm at DC Bias (50 Oe) | 71.0% (nom) 65.1% (min) |



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

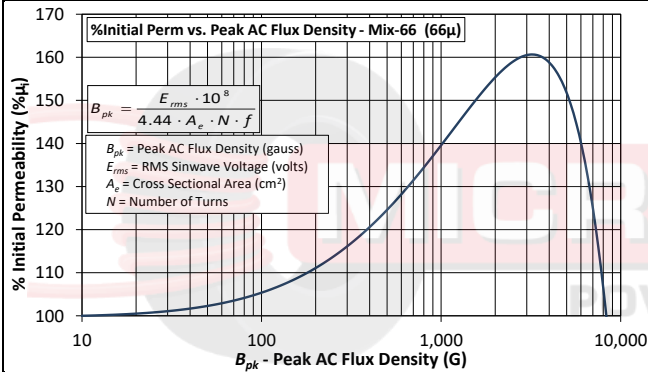
where B_{pk} expressed in gauss, f expressed in hertz, and:
 $a=1.72E+10$, $b=4.96E+07$, $c=1.23E+06$, $d=1.73E-14$



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

where H expressed in oersteds, and:

$a=1.00E-02$, $b=1.23E-05$, $c=1.48$, $d=0.00$



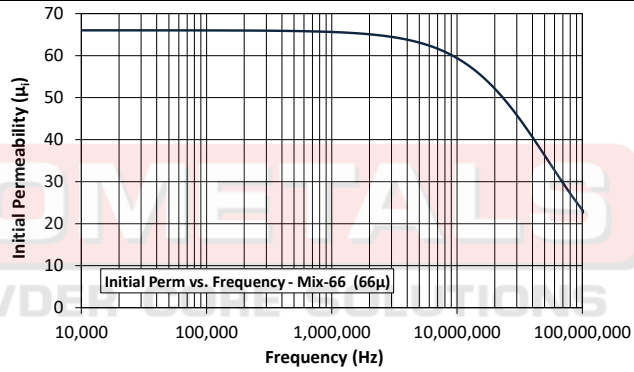
$$B_{pk} = \frac{E_{rms} \cdot 10^8}{4.44 \cdot A_e \cdot N \cdot f}$$

B_{pk} = Peak AC Flux Density (gauss)
 E_{rms} = RMS Sinwave Voltage (volts)
 A_e = Cross Sectional Area (cm²)
 N = Number of Turns

$$\% \mu_i = \frac{1}{a + bB_{pk}^c + \frac{1}{dB_{pk}^e} + \frac{1}{f}}$$

where B_{pk} expressed in gauss, and:

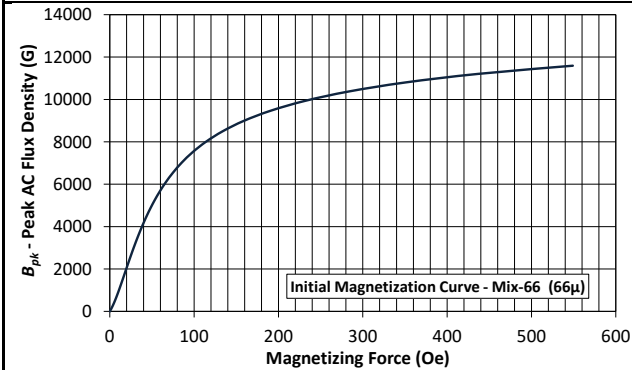
$a=1.91E+02$, $b=2.79E-01$, $c=9.70E-01$, $d=1.54E+13$, $e=-2.76E+00$, $f=2.10E+02$



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

where f expressed in hertz, and:

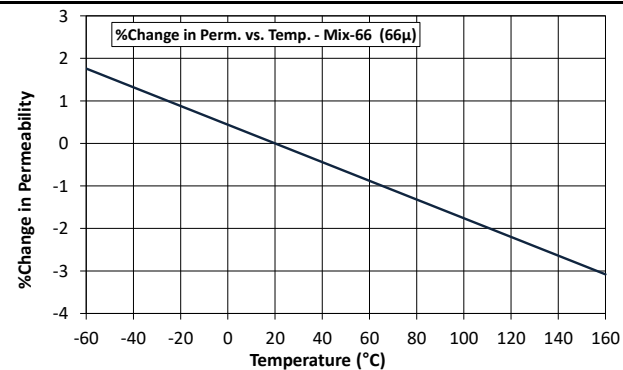
$a=1.62E-02$, $b=2.46E-12$, $c=1.27E+00$, $d=4.20E+00$



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

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

$a=6.85E-02$, $b=2.00E+00$, $c=3.72E+01$, $d=4.51E-01$, $e=2.45E+02$



$$\left(\frac{\Delta \mu_i}{\mu_i} \right) ppm = a(T - 20)$$

where T expressed in celsius, and:

$a=-220$