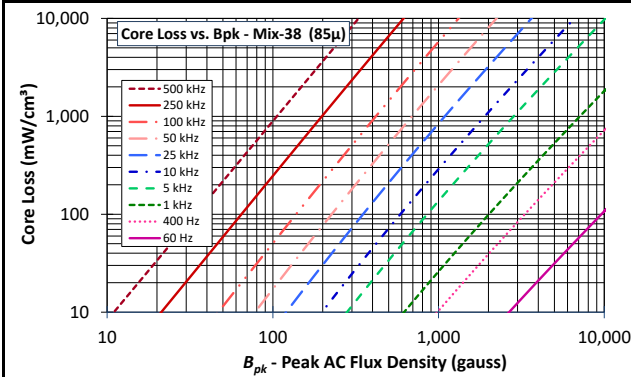




Mix: -38

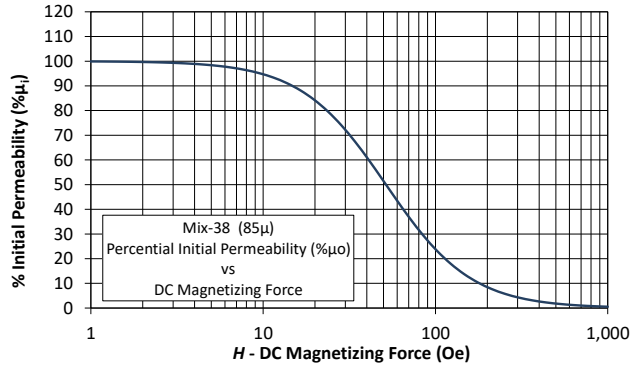
Revision 20190524 - Generated 2019-May-24

μi(reference)	85
Typical AL tolerance	± 10%
Color Code	Gray/Black
Density	7.1 g/cm ³
Bsat	18.7kG
Core Loss (100kHz, 140g)	103 mW/cm ³ (nom) 118 mW/cm ³ (max)
%Perm at DC Bias (50 Oe)	51.4% (nom) 43.5% (min)



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

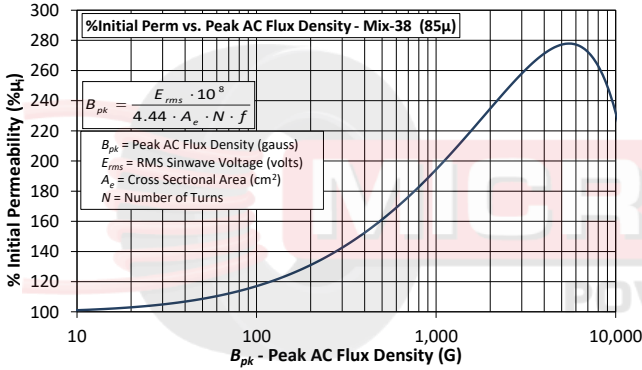
where B_{pk} expressed in gauss, f expressed in hertz, and:
 $a=1.20E+09$, $b=1.30E+08$, $c=1.90E+06$, $d=3.20E-13$



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

where H expressed in oersteds, and:

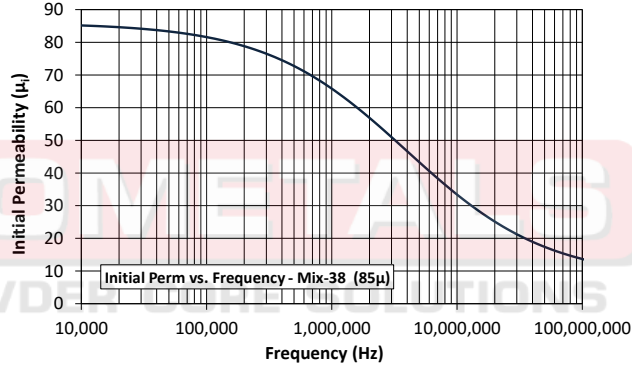
$a=1.00E-02$, $b=9.78E-06$, $c=1.76$, $d=0.00$



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

where B_{pk} expressed in gauss, and:

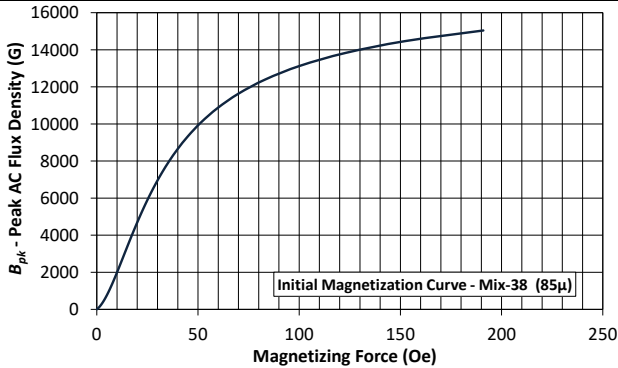
$a=1.17E+02$, $b=1.86E+00$, $c=6.54E-01$, $d=4.70E+14$, $e=-2.96E+00$, $f=5.78E+02$



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

where f expressed in hertz, and:

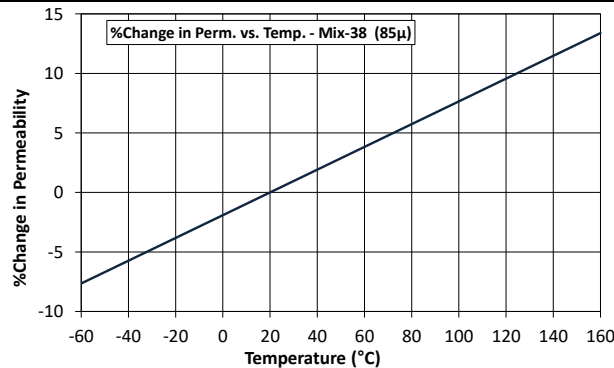
$a=1.28E-02$, $b=1.04E-07$, $c=7.71E-01$, $d=7.71E+00$



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

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

$a=2.18E-01$, $b=2.00E+00$, $c=3.41E+01$, $d=6.46E-01$, $e=2.20E+02$



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

where T expressed in celsius, and:

$a=956$