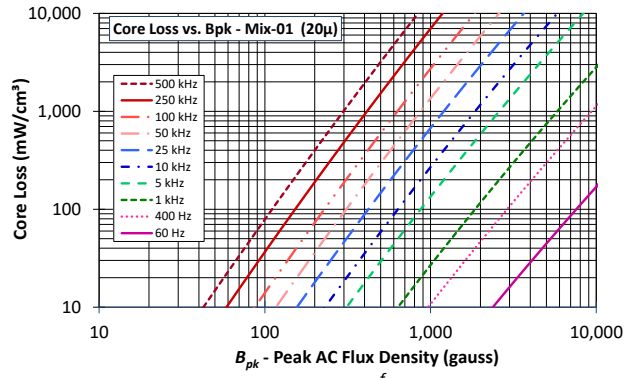
Mix:	-01

Revision 20190524 - Generated 2019-May-24

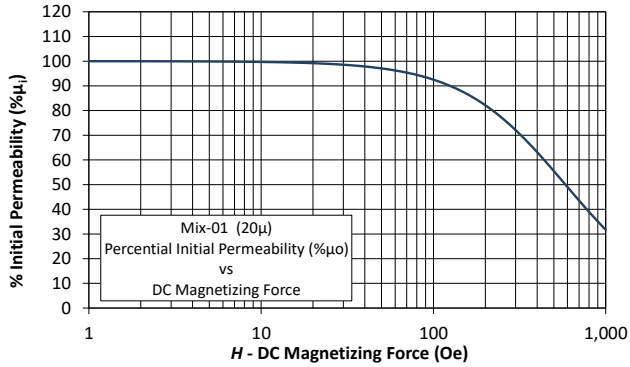
µi(reference)	20
Typical AL tolerance	± 10%
Color Code	Blue/Clear
Density	6.4 g/cm³
Bsat	17.5kG
Core Loss (100kHz, 140g)	31 mW/cm³ (nom) 36 mW/cm³ (max)
%Perm at DC Bias (200 Oe)	82.2% (nom) 78.0% (min)



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

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

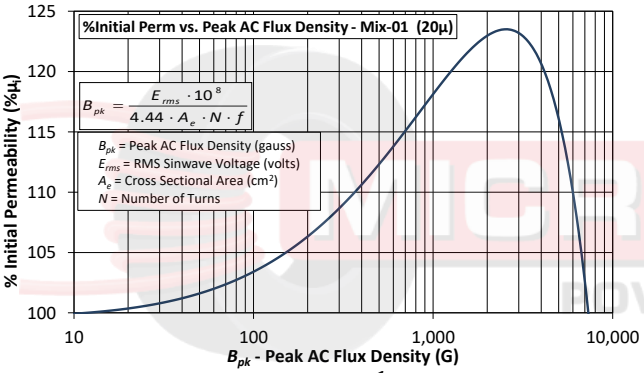
a=1.90E+09, b=2.00E+08, c=9.00E+05, d=4.30E-15



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

where H expressed in oersteds, and:

a=1.00E-02, b=1.14E-06, c=1.43, d=0.00

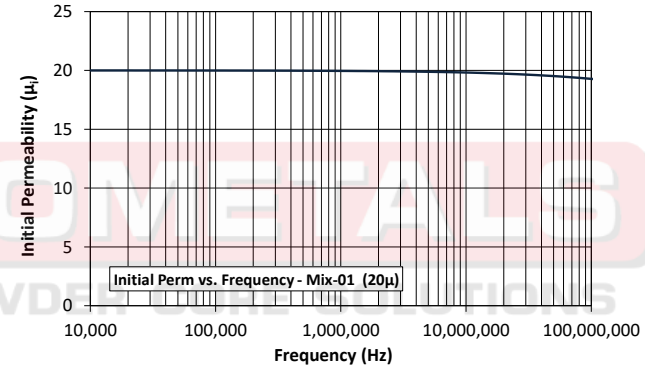


$$B_{pk} = \frac{E_{rms} \cdot 10^8}{4.44 \cdot A_e \cdot N \cdot f}$$

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

where B_{pk} expressed in gauss, and:

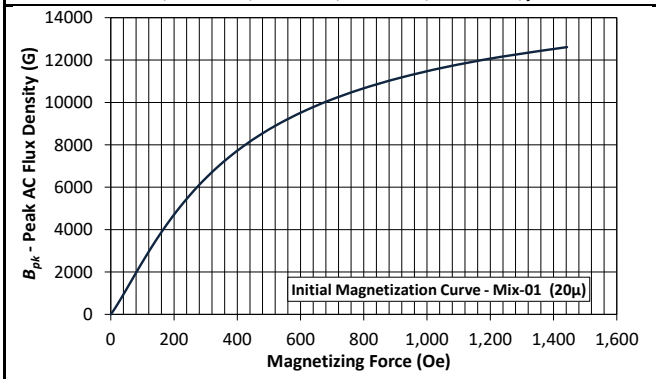
a=3.50E+02, b=3.78E-01, c=1.03E+00, d=1.76E+10, e=-1.98E+00, f=1.40E+02



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

where f expressed in hertz, and:

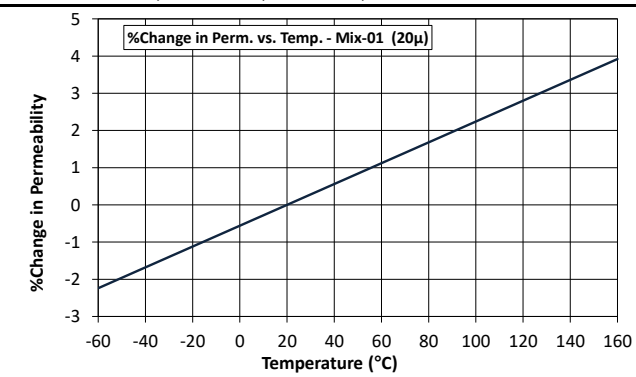
a=2.19E-01, b=1.98E-07, c=6.64E-01, d=1.54E+01



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

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

a=2.69E-02, b=1.75E+00, c=4.65E+01, d=5.67E-01, e=8.73E+02



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

where T expressed in celsius, and:

a=280

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