**Micrometals Iron 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  
www.Micrometals.com

### Mix: **-8**

<table>
<thead>
<tr>
<th>µi (reference)</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color Code</td>
<td>Yellow/Red</td>
</tr>
<tr>
<td>Density</td>
<td>6.5 g/cm³</td>
</tr>
<tr>
<td>Boat</td>
<td>17.6G</td>
</tr>
<tr>
<td>Core Loss (100kHz, 140g)</td>
<td>32 mW/cm² (nom)</td>
</tr>
<tr>
<td>Core Loss at DC Bias (200 Oe)</td>
<td>36 mW/cm² (max)</td>
</tr>
<tr>
<td>%Perm at DC Bias (200 Oe)</td>
<td>60.1% (nom)</td>
</tr>
<tr>
<td></td>
<td>53.7% (min)</td>
</tr>
</tbody>
</table>

**Core Loss (mW/cm³) =**

\[ B_{pk} \text{ - Peak AC Flux Density (gauss)} \]

**Core Loss (100kHz, 140g)**

\[ B_{pk} = \text{Peak AC Flux Density (gauss)} \]

**%Initial Perm vs. Peak AC Flux Density - Mix-8 35μ**

\[ \%\mu_i = \frac{1}{a + bB_{pk}^2 + \frac{c}{f}} + \frac{d}{f} \]

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

\( a=1.90E+09, b=2.00E+08, c=9.00E+05, d=5.00E-15 \)

**Initial Permeability (%) =**

\[ H = D \text{ - DC Magnetizing Force (Oe)} \]

\[ N = \text{Number of Turns} \]

\[ I_e = \text{DC Current (A)} \]

\[ I_e = \text{Effective Path Length (cm)} \]

**%Initial Perm vs. DC Bias - Mix-8 35μ**

\[ \%\mu_i = \frac{1}{a + bH^2 + \frac{c}{f}} + \frac{d}{f} \]

where \( H \) expressed in oersteds, and:

\( a=1.00E-02, b=3.49E-06, c=1.43, d=0.00 \)

**Initial Permeability (%)**

\[ B_{pk} = \text{Peak AC Flux Density (G)} \]

\[ E_{rms} = \text{RMS Sinwave Voltage (volts)} \]

\[ A_e = \text{Cross Sectional Area (cm}^2) \]

\[ N = \text{Number of Turns} \]

**Initial Perm vs. Frequency - Mix-8 35μ**

\[ \%\mu_i = \frac{1}{a + b \cdot f^c + d} \]

where \( f \) expressed in hertz, and:

\( a=1.27E-01, b=1.98E-07, c=6.64E-01, d=2.70E+01 \)

**Initial Magnetization Curve - Mix-8 35μ**

\[ B_{pk} = \text{Peak AC Flux Density (G)} \]

\[ E_{rms} = \text{RMS Sinwave Voltage (volts)} \]

\[ A_e = \text{Cross Sectional Area (cm}^2) \]

\[ N = \text{Number of Turns} \]

**%Change in Perm. vs. Temp. - Mix-8 35μ**

\[ \%\mu_i = \frac{1}{a + bH^2 + \frac{c}{f}} + \frac{d}{f} \]

where \( T \) expressed in celsius, and:

\( a=255 \)