Ferrite Sheet For Wireless Charging
FFSW/SDK15 Series

Very thin and flexible ferrite tile, ideal for low frequency wireless charging
- Designed specifically for wireless charging applications
- Increases field strength of the transmitter and receiver antenna with the addition of this ferrite
- Magnetic permeability is 1800 at 10kHz
- Available in flexible (FFSW) or solid (SDK15) forms
- Custom profile available upon request

**NEW!**

### Application

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### Specifications

<table>
<thead>
<tr>
<th>Type</th>
<th>FFSW</th>
<th>SDK15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Size (mm)</td>
<td>50 x 60 tile*</td>
<td>50 x 60 tile*</td>
</tr>
<tr>
<td>Ferrite Thickness (mm)</td>
<td>0.1, 0.2, 0.3</td>
<td>0.5, 1.0, 1.5, 2.0</td>
</tr>
<tr>
<td>PSA Thickness (mm)</td>
<td>0.03</td>
<td>0.03 (optional)</td>
</tr>
<tr>
<td>PET Film Thickness (mm)</td>
<td>0.08</td>
<td>0.08 (optional)</td>
</tr>
<tr>
<td>Total Thickness (mm)</td>
<td>0.21, 0.31, 0.41</td>
<td>Available upon request</td>
</tr>
<tr>
<td>Magnetic Permeability ($\mu$, $\mu''$)</td>
<td>$\pm 380/100$ kHz</td>
<td>$\pm 1200/100$ kHz</td>
</tr>
<tr>
<td>Saturation Magnetic Flux Density</td>
<td>240mT</td>
<td></td>
</tr>
<tr>
<td>Curie Temperature</td>
<td>$\geq 125$°C</td>
<td></td>
</tr>
<tr>
<td>Volume Resistivity ($\Omega$.cm)</td>
<td>10$^6$</td>
<td></td>
</tr>
<tr>
<td>Operating Temperature ($^\circ$C)</td>
<td>$-40$°$+$85</td>
<td>$-40$°$+$125**</td>
</tr>
</tbody>
</table>

*custom size available upon request
**operating temperature without mylar or adhesive

### Properties

- Permeability vs. Frequency
- Magnetic Field Coils
- Ferrite enhances the magnetic flux to boost charging

### Test specifications

- **Charging Efficiency Test**
  - Charging frequency: 100kHz
  - Gap between two antennas: 10mm
  - Antenna size: $\phi 50$mm
  - Spectrum Analyzer
  - Ferrite Specimen
  - Signal Generator
  - Receiving antenna

**Improved Charging Efficiency!

Measurement results

- Reference FFSX-H (w/110) installation
- FFSW

- **Charging efficiency**
  - 90%
  - 87.7%
  - 64.6%
  - 2.9%

Please request for detailed product specification data prior to purchase.

Volume resistivity stated on our EMI absorber flyer is meant for noise control parameters, where the absorber is considered a conductor, but not for insulation performance. Care should be taken when using absorbers. KITAGAWA INDUSTRIES America, Inc. makes no guarantees as to electrical resistivity values and accepts no liability due to short circuits where EMI absorbers are used directly on a PC Board or areas near high voltage such as for power. The products are designed for EMI noise reduction for electronics. This is not recommended for applications involving human life or extremely high accuracy. Prior to using the products in production, please verify their performance and adhesive strength of PSA for long term use. Avoid applying any external stress such as bending or high amounts of tension. Note when the absorber products are cut, bent, or pulled, there may be a possibility of creating cracks. For storage, keep products in a cool, dry, well-ventilated area at room temperature and avoid high temperatures, humidity, and direct sunlight.

Please contact the sales department at KITAGAWA INDUSTRIES America, Inc. for the use of our products prior to selecting the parts for your application.