

# Noise Suppression Sheets

## Flexield

For multipurpose

IFL series

Issue date: December 2013

- All specifications are subject to change without notice.
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

# Noise Suppression Sheets/Magnetic Sheets/ Radio Wave Absorbers Flexield

## FOR NOISE SUPPRESSION IFL MATERIALS

TDK's Flexield is a highly flexible and shock resistant soft magnetic sheet material consisting of magnetic material and resin. It suppresses noise radiated from electronic devices across a wide frequency range. Offering excellent flexibility in fabrication, Flexield is a sheet-type noise reduction solution particularly suited for high-frequency range.



### FEATURES

- They are flexible(not crack).
- They are suited for thin and compact devices.
- Available in a wide range of dimensions and shapes.
- Conforming to RoHS Directive.

### APPLICATIONS

- Noise reduction for flexible cables used in mobile devices (including notebook PC's, digital cameras, game machines, and cellular phones).
- Reduction of noise radiated from a wide variety of electronic devices (including noise from CPU).
- Reduction of specific absorbed radiation (SAR) from cellular phones.
- Reduction of internal EMI (resonance, crosstalk) inside a shielded casing.

### PRODUCT IDENTIFICATIONS

IFL12 - 100 N B 300 × 200  
(1) (2) (3) (4) (5) (6)

- (1) Material name
- (2) Magnetic sheet thickness(100: 100μm)
- (3) Surface film thickness symbol
- (4) Double-sided tape thickness symbol
- (5) Length(300: 300mm)
- (6) Width(200: 200mm)

### SPECIFICATIONS

| Type<br>(Features/Application)         | Thin type<br>High μ/High characteristic | Thin type<br>High μ/High frequency band |
|----------------------------------------|-----------------------------------------|-----------------------------------------|
| Material name                          | IFL12                                   | IFL10M                                  |
| Recommended frequency range            | 5MHz to 3GHz                            | 10MHz to 3GHz                           |
| Operating temperature range (°C)       | -40 to +85                              | -40 to +85                              |
| Initial permeability[at 1MHz]typ.      | 180                                     | 120                                     |
| Resistivity(Ω/square) min.             | 100K                                    | 1M                                      |
| Thermal conductivity (W/m • K)         | 1.5                                     | 1.5                                     |
| Standard sheet dimensions (mm)         | 300×200                                 | 300×200                                 |
| Standard magnetic sheet thickness (mm) | 0.05, 0.1, 0.2                          | 0.025, 0.05, 0.1, 0.2                   |
| Compatible with rolls                  | ✓                                       | ✓                                       |
| Flame retardant                        | —                                       | —                                       |
| Environment                            | RoHS directive<br>Halogen-free          | RoHS directive<br>Halogen-free          |

- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

## Product Identifications of The Standard Sample

IFL12 - 100 N B 300 × 200  
 (1) (2) (3) (4) (5) (6)

(1) Material name

(2) Magnetic sheet thickness (100: 100μm)

(3) Surface film thickness symbol (N: Correspondence thickness)

(4) Double-sided tape thickness symbol (B: 10μm)

(5) Length(300: 300mm)

(6) Width(200: 200mm)

|                                     | IFL10M                                                                                   | IFL12                                                          |
|-------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| Correspondence thickness(mm)        | 0.025, 0.5, 0.1, 0.2                                                                     | 0.05, 0.1, 0.2                                                 |
| Product name of the standard sample | IFL10M-025NB300×200<br>IFL10M-050NB300×200<br>IFL10M-100NB300×200<br>IFL10M-200NB300×200 | IFL12-050NB300×200<br>IFL12-100NB300×200<br>IFL12-200NB300×200 |