

Magnetic Sheets for RFID Flexield

Magnetic suppression sheet

IRJ/IFL series

Ferrite plate

IBF series

Issue date: August 2012

- 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.
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Noise Suppression Sheets/Magnetic Sheets/ Radio Wave Absorbers Flexield

Conformity to RoHS Directive

FOR RFID MAGNETIC SHEETS IRJ, IFL, IBF MATERIALS

TDK's Flexield is a highly flexible and shock resistant soft magnetic sheet material consisting of magnetic material and resin. It is highly effective when used in reader/writers or attached to tags and metal components used in emerging RFID systems based on the 13.56MHz band. With an extensive lineup of products that deliver excellent permeability, Flexield allows designers to match impedance with ease and delivers excellent magnetic convergence.



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

- For improving reception performance in RFID reader/writers.
- Integrate IC cards with metal.
- Integrate IC tags with metal.
- Improved antenna reception sensitivity.

PRODUCT IDENTIFICATIONS

IBF10 - 100 A B 125 × 125 A
(1) (2) (3) (4) (5) (6) (7)

- (1) Material name
- (2) Magnetic sheet thickness(100: 100μm)
- (3) Surface film thickness symbol
- (4) Double-sided tape thickness symbol
- (5) Length(125: 125mm)
- (6) Width(125: 125mm)
- (7) Product symbol

SPECIFICATIONS

Type (Features/Application)	Flame retardant High performance	Thin type High performance	High permeability Low dissipation
Material name	IRJ04	IFL04	IBF15
Operating temperature range (°C)	-40 to +85	-40 to +85	-40 to +85
Initial permeability [at 13.56MHz]	μ' typ. μ'' typ.		
	40 1.0	45 1.3	150 5
Resistivity(Ω /square) min.	1M	10K	1G
Thermal conductivity (W/m • K)	1.5	1.5	—
Standard sheet dimensions (mm)	300×200	300×200	125×125
Standard magnetic sheet thickness (mm)	0.1, 0.25	0.05, 0.1	0.1, 0.18
Compatible with rolls	—	○	—
Flame retardant	UL94V-0	—	—
Environment	RoHS directive	RoHS directive Halogen-free	RoHS directive

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Product Identifications of The Standard Sample

IRJ SERIES

IRJ04 - $\frac{100}{(1)}$ $\frac{N}{(2)}$ $\frac{D}{(3)}$ $\frac{300}{(4)}$ \times $\frac{200}{(5)}$ $\frac{200}{(6)}$

- (1) Material name
- (2) Magnetic sheet thickness (100: 100 μ m)
- (3) Surface film thickness symbol (N: Correspondence thickness)
- (4) Double-sided tape thickness symbol (D: 30 μ m)
- (5) Length(300: 300mm)
- (6) Width(200: 200mm)
- (7) Product symbol(No)

	IRJ04
Correspondence thickness(mm)	0.1, 0.25
Product name of the standard sample	IRJ04-100ND300x200 IRJ04-250ND300x200

IFL SERIES

IFL04 - $\frac{100}{(1)}$ $\frac{N}{(2)}$ $\frac{B}{(3)}$ $\frac{300}{(4)}$ \times $\frac{200}{(5)}$ $\frac{200}{(6)}$

- (1) Material name
- (2) Magnetic sheet thickness (100: 100 μ m)
- (3) Surface film thickness symbol (N: Correspondence thickness)
- (4) Double-sided tape thickness symbol (B: 10 μ m)
- (5) Length(300: 300mm)
- (6) Width(200: 200mm)
- (7) Product symbol(No)

	IFL04
Correspondence thickness(mm)	0.05, 0.1
Product name of the standard sample	IFL04-050NB300x200 IFL04-100NB300x200

IBF SERIES

IBF10 - $\frac{100}{(1)}$ $\frac{D}{(2)}$ $\frac{D}{(3)}$ $\frac{125}{(4)}$ \times $\frac{125}{(5)}$ $\frac{B}{(6)}$ $\frac{B}{(7)}$

- (1) Material name
- (2) Magnetic sheet thickness (100: 100 μ m)
- (3) Surface film thickness symbol (D: 30 μ m)
- (4) Double-sided tape thickness symbol (D: 30 μ m)
- (5) Length(125: 125mm)
- (6) Width(125: 125mm)
- (7) Product symbol(B: Standard)

	IBF15
Correspondence thickness(mm)	0.1, 0.18
Product name of the standard sample	IBF15-100DD125x125B IBF15-180DD125x125B