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

FOR NOISE SUPPRESSION IRL, IRJ, IVM, IRB, IRE MATERIALS

Flexield® is an absorptive electromagnetic shielding material consisting of magnetic material and resin. It suppresses noise radiated from electronic equipment over a wide range of frequencies, offers flexibility in fabrication and delivers particularly excellent performance in high frequency ranges. Flexield® is the ideal sheet-type noise reduction product for mobile devices including notebook PCs, digital cameras and cell phones.

FEATURES

- They are flexible(Will not crack).
- They are suited for thin and compact devices.
- Available in a wide range of dimensions and shapes.
- The products in the line-up support a wide range of frequency bands (50MHz to 30GHz).
- Excellent performance at high frequencies (≧ 300MHz).
- Environmentally products(All products: Lead-free) are also available.
- Product Conforming to RoHS Directive

APPLICATIONS

- Electromagnetic noise reduction for electric equipment (especially for mobile equipment)
  Internal EMI, resonance reduction(mounting inside a shielded box)
  • RF-block
  • Amplifier
  Radiated noise reduction(Circuit, IC, flat cable)
  Surface current suppression
- Improvement of noise immunity
- SAR reduction for mobile phone
- Electrostatic discharge countermeasure
- Improved antenna reception sensitivity.

PRODUCT IDENTIFICATIONS

IRL02	A	H	300	x	300	x	2
(1)	(2)	(3)	(4)		(5)		(6)

(1) Material name
(2) A denotes: Both adhesive taped products
A: Standard type
AB: Thin type
(3) H denotes: Half-cutting products
(4) Length(300: 300mm)
(5) Width(300: 300mm)
(6) Thickness(2: 2mm)

SPECIFICATIONS

Type(Features/Application)	High performance • Wide band								High permeability	Super high permeability
Material name	IRL02				IRL03				IRL04	IRL05
Recommended frequency range	100MHz to 10GHz				100MHz to 10GHz				50MHz to 10GHz	30MHz to 10GHz
Operating temperature range (°C)	–40 to +85				–40 to +85				–40 to +85	–40 to +85
Initial permeability μi [at10MHz]min.	20				20				30	60
Resistivity (Ω/square) min.	1M				1M				10k	1G (The magnetic layer/10)
Thermal conductivity(W/m • k)	1.4				1.4				1.4	1.6
Standard sheet dimensions (mm)	200×200			300×200	300×200				300×200	300×200
Standard sheet thickness (mm)	1	2		0.05	0.25		0.5		0.25	0.5	0.1
Standard sheet weight (g)	100	200		10	50		100		50	100	25
Density (g/cm³)	3.2			2.5	3.4				3.3		3.7
Flame retardant	—				—				(Also available for UL94 approved products.)	—
Environment	Lead/Halogen-free Conformity to RoHS Directive				Lead free Conformity to RoHS Directive				Lead/Halogen-free Conformity to RoHS Directive	Halogen-free Conformity to RoHS Directive

NEW *NEW*

- 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.

SPECIFICATIONS

Type(Features/Application)	High-resisting	High resistance/Unflammable	
Material name	IRJ01	IVM05	IVM06
Recommended frequency range	100MHz to 10GHz	100MHz to 3GHz	100MHz to 3GHz
Operating temperature range (°C)	–40 to +125	–40 to +85	–40 to +85
Initial permeability μi [at10MHz]min.	18	7	12
Resistivity (Ω/square) min.	1M	1G	1G
Thermal conductivity(W/m • k)	1.0	1.2	1.3
Standard sheet dimensions (mm)	250×250	300×200	300×200
Standard sheet thickness (mm)	0.5	0.4	0.4
Standard sheet weight (g)	85	80	80
Density (g/cm^3)	2.5	3.3	3.3
Flame retardant	UL94V-1	UL94V-0	UL94V-0
Environment	Lead/Halogen-free Conformity to RoHS Directive	Lead/Halogen-free Conformity to RoHS Directive	Lead free Conformity to RoHS Directive

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Type(Features/Application)	For quasi-microwave band				For GHz		
Material name	IRB02				IRE02		
Recommended frequency range	500MHz to 5GHz				3 to 30GHz		
Operating temperature range (°C)	–40 to +70				–40 to +85		
Initial permeability μi [at10MHz]min.	6				4		
Resistivity (Ω/square) min.	1M				1M		
Thermal conductivity(W/m • k)	1.2				0.8		
Standard sheet dimensions (mm)	300×300				300×300		
Standard sheet thickness (mm)	1	2	3	6	1	2	3
Standard sheet weight (g)	300	600	900	1800	250	500	750
Density (g/cm^3)	3.3				3.75		
Flame retardant	—				—		
Environment	Lead/Halogen-free Conformity to RoHS Directive				Lead/Halogen-free Conformity to RoHS Directive		

※ It may not be allowed to export these Flexields due to Export Control regulations.