

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 (≥ 300 MHz).
- 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

	NEW				NEW	
Type(Features/Application)	High performance • Wide band				High permeability	
Material name	IRL02		IRL03		IRL04	
Recommended frequency range	100MHz to 10GHz		100MHz to 10GHz		50MHz to 10GHz	
Operating temperature range (°C)	-40 to +85		-40 to +85		-40 to +85	
Initial permeability μ_i [at10MHz]min.	20		20		30	
Resistivity (Ω/square) min.	1M		1M		10k	
Thermal conductivity(W/m • k)	1.4		1.4		1.4	
Standard sheet dimensions (mm)	200×200	300×200	300×200			
Standard sheet thickness (mm)	1	2	0.05	0.25	0.5	0.25
Standard sheet weight (g)	100	200	10	50	100	25
Density (g/cm ³)	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	

- 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.
- It may not be allowed to export these absorbers due to Export Control regulations.

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 μ_i [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 μ_i [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		

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Mouser Electronics

Authorized Distributor

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TDK:

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[IRL04AB300X200X0.5](#) [IRL05AB300X200X0.1](#) [IRL04EAB300X200X0.25](#) [IRL04EAB300X200X0.5](#)
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