

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 ($\geq 300\text{MHz}$).
- Environmentally products(All products: Lead-free) are also available.

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
- 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

Type(Features/Application)	High performance • Wide band						High permeability			High-resisting	
Material name	IRL02		IRL03		IRL04			IRJ01			
Recommended frequency range	100MHz to 10GHz		100MHz to 10GHz		50MHz to 10GHz			100MHz to 10GHz			
Operating temperature range (°C)	-40 to +85		-40 to +85		-40 to +85			-40 to +125			
Initial permeability μ_i [at10MHz]min.	20		20		30			18			
Resistivity (Ω /square) min.	1M		1M		10k			1M			
Thermal conductivity(W/m • k)	1.4		1.4		1.4			1.0			
Standard sheet dimensions (mm)	200×200		300×200		300×200			250×250			
Standard sheet thickness (mm)	1	2	0.05	0.1	0.25	0.5	0.25	0.5	1	0.5	
Standard sheet weight (g)	100	200	10	20	50	100	50	100	200	85	
Density (g/cm ³)	3.2		2.5		3.4			3.3			2.5
Flame retardant	—		—		—			(Also available for UL94 approved products.)			UL94V-1
Environment	Lead / Halogen-free		Lead free		Lead / Halogen-free			Lead / Halogen-free			

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Type(Features/Application)	High resistance/Unflammable				For quasi-microwave band				For GHz		
Material name	IVM05		IVM06		IRB02				IRE02		
Recommended frequency range	100MHz to 3GHz		100MHz to 3GHz		500MHz to 5GHz				3 to 30GHz		
Operating temperature range (°C)	-40 to +85		-40 to +85		-40 to +70				-40 to +70		
Initial permeability μ_i [at10MHz]min.	7		12		6				4		
Resistivity (Ω /square) min.	1G		1G		1M				1M		
Thermal conductivity(W/m • k)	1.2		1.3		1.2				0.8		
Standard sheet dimensions (mm)	300×200		300×200		300×300				300×300		
Standard sheet thickness (mm)	0.4		0.4		1	2	3	6	1	2	3
Standard sheet weight (g)	80		80		300	600	900	1800	250	500	750
Density (g/cm ³)	3.3		3.3		3.3				3.75		
Flame retardant	UL94V-0		UL94V-0		—				—		
Environment	Lead / Halogen-free		Lead free		Lead / Halogen-free				Lead / Halogen-free		

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

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