



# Noise Suppression Sheets

Flexield

# IFL series

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## REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

### SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using these products.

 **REMINDERS**

- When mounting on live electrical parts directly, there is a fear that an insulation accident is caused, so please consider on the design in case of use.
- There is a fear that sullenness of double sided adhesive tape occurs, so please refrain from the use to a part where you wind repeatedly by which it's for the hinge part.
- The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition. The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property. When the damage occurs by having been used the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please understand that the responsibility cannot be taken.

- (1) Aerospace/Aviation equipment
- (2) Transportation equipment (cars, electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment
- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment

- (8) Public information-processing equipment
- (9) Military equipment
- (10) Electric heating apparatus, burning equipment
- (11) Disaster prevention/crime prevention equipment
- (12) Safety equipment
- (13) Other applications that are not considered general-purpose applications

When using these products in general purposes and standard use, it is recommended that protection circuits are used, devices are secured, and backup circuits are kept for increased safety.

# Noise Suppression Sheets

Product compatible with RoHS directive  
Halogen-free

Flexield

## Overview of IFL Series

### FEATURES

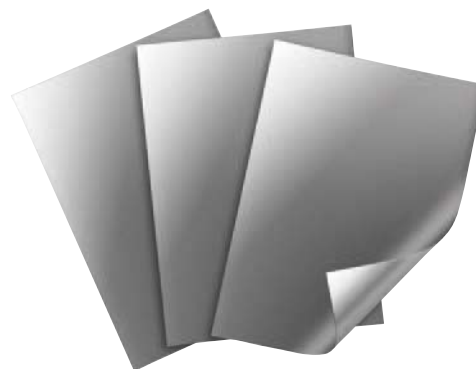
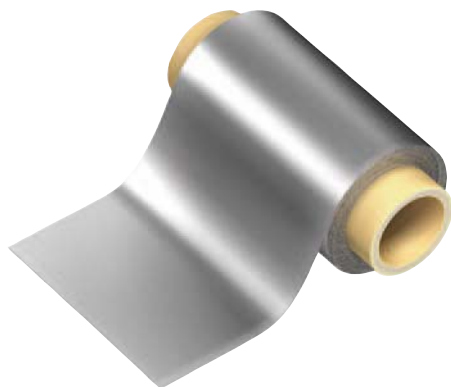
- High permeability items are lined up.
- It's also possible to load on a little gap because it's thin type.
- Has flexibility , it does not crack by impact or the like .
- It excels in shape processability and can respond to various dimensions and shapes.
- Offer by a roll shape is possible.

### APPLICATION


- Electromagnetic noise measures of various kinds of electronic equipment
- Receiver sensitivity improvement of PEN input (inductive coupling type)
- Performance improvement of RFID (on metal correspondence)

### STANDARD SHAPE LIST

Material	Thickness (mm)	Sheet dimensions (mm)	Roll	
			Width (mm)	Length (m)
IFL10M	0.025	300×200	300	100
	0.05			
	0.1			
	0.2			
IFL12	0.05	300×200	300	100
	0.1			
	0.2			
IFL16	0.03	300×200	300	100
	0.05			



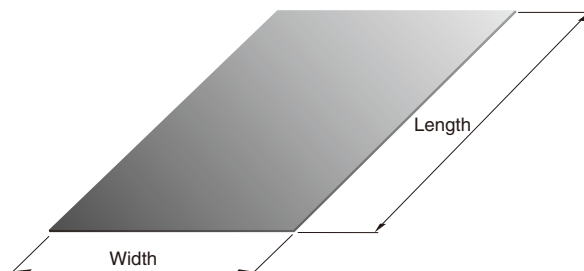
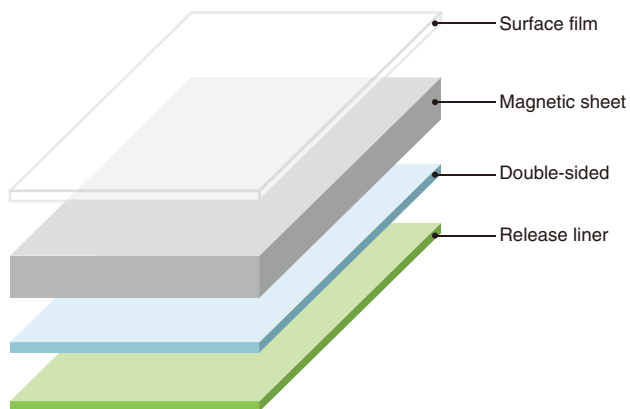
- RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. <http://product.tdk.com/en/environment/rohs/>
- Halogen-free: Indicates that Cl content is less than 900ppm, Br content is less than 900ppm, and that the total Cl and Br content is less than 1500ppm.

 Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.  
Please note that the contents may change without any prior notice due to reasons such as upgrading.

# IFL Series Sheet Type

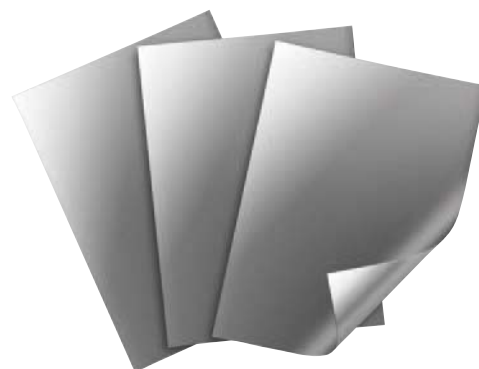
## ■ PART NUMBER CONSTRUCTION

IFL	10M	025	N		B		300		×	200	
Series name	Material symbol	Magnetic material thickness (mm)		Surface film thickness (mm)		Double-sided tape thickness (mm)		Length (mm)		Width (mm)	
	10M	025	0.025	N	No	N	No	300	300	200	200
	12	030	0.03	P	0.016	B	0.01				
	16	050	0.05	R	0.038	D	0.03				
		100	0.10	R: Release type							
		200	0.20								



## ■ STANDARD PART NUMBER LIST

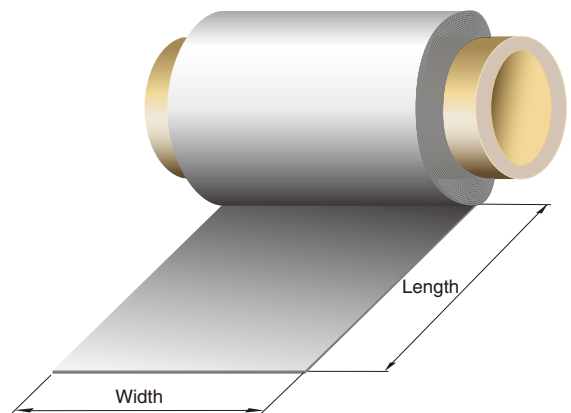
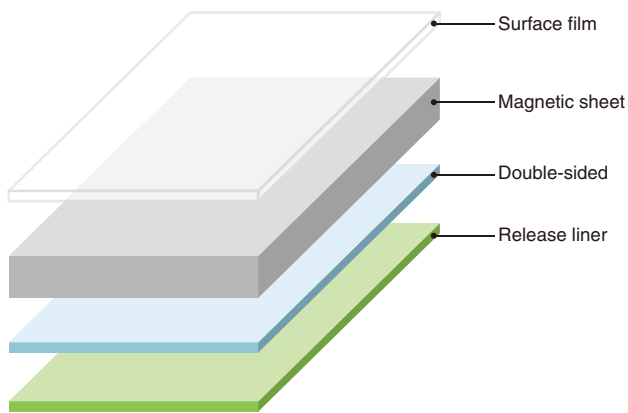
Material	Standard dimensions (mm)	Thickness	Part number
IFL10M	300×200	0.025	IFL10M-025NB300×200
		0.05	IFL10M-050NB300×200
		0.1	IFL10M-100NB300×200
		0.2	IFL10M-200ND300×200
IFL12	300×200	0.05	IFL12-050NB300×200
		0.1	IFL12-100NB300×200
		0.2	IFL12-200ND300×200
IFL16	300×200	0.03	IFL16-030NB300X200
		0.05	IFL16-050NB300X200



# IFL Series Roll Type

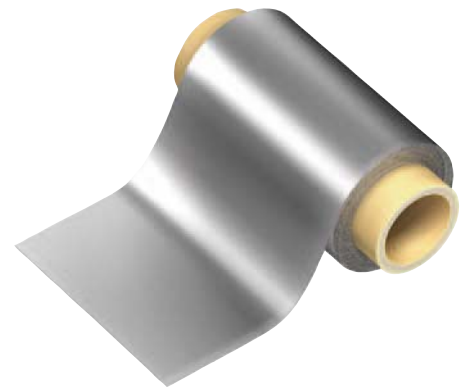
## ■ PART NUMBER CONSTRUCTION

IFL	10M	025	R		N		1HR		×	300	
Series name	Material symbol	Magnetic material thickness (mm)		Surface film thickness (mm)		Double-sided tape thickness (mm)		Length (m)		Width (mm)	
	10M	025	0.025	N	No	N	No	1HR	100	300	300
	12	030	0.03	P	0.016	B	0.01				
	16	050	0.05	R	0.038	D	0.03				
		100	0.10	R: Release type							



## ■ STANDARD PART NUMBER LIST

Material	Width (mm)	Length (m)	Thickness (mm)	Part number
IFL10M	300	100	0.025	IFL10M-025RN1HRX300
			0.05	IFL10M-050RN1HRX300
			0.1	IFL10M-100RN1HRX300
IFL12	300	100	0.05	IFL12-050RN1HRX300
			0.1	IFL12-100RN1HRX300
IFL16	300	100	0.03	IFL16-030RN1HRX300
			0.05	IFL16-050RN1HRX300



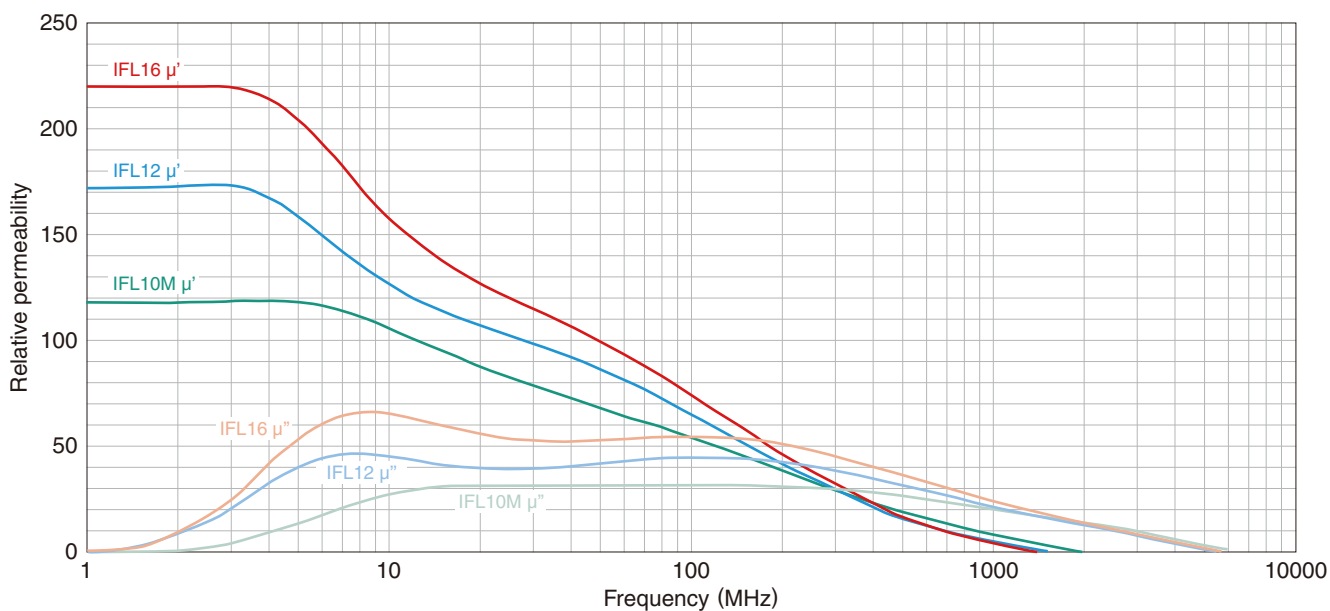
# IFL Series

## MATERIAL CHARACTERISTIC

### MATERIAL CHARACTERISTIC SPECIFICATION TABLE

Material name	Recommended specification frequency range	Relative permeability (at 1MHz)	Surface resistivity ( $\Omega/\text{sq.}\mu\text{m}$ )	Thermal conductivity ( $\text{W/m} \cdot \text{K}$ )	Operating temperature range ( $^{\circ}\text{C}$ )
IFL10M	10 MHz to 3 GHz	120	1M	1.5	-40 to +85
IFL12	5 MHz to 3 GHz	180	10k	1.5	-40 to +85
IFL16	0.5 MHz to 1 GHz	220	10k	1.5	-40 to +85

### RELATIVE PERMEABILITY

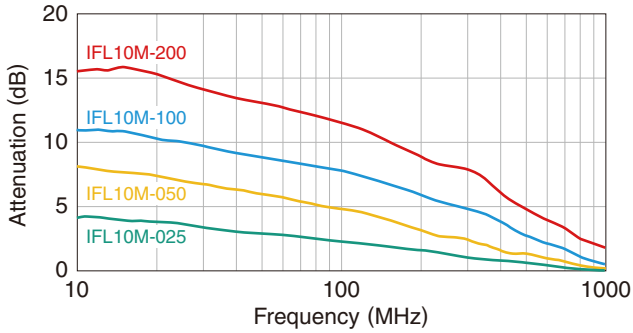


# IFL Series

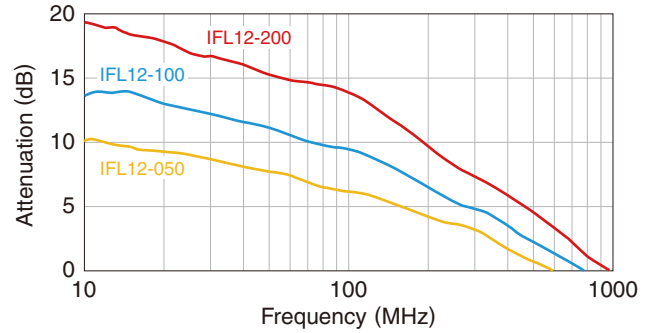
## MATERIAL CHARACTERISTIC

### NEIGHBORHOOD MAGNETIC FIELD ATTENUATION

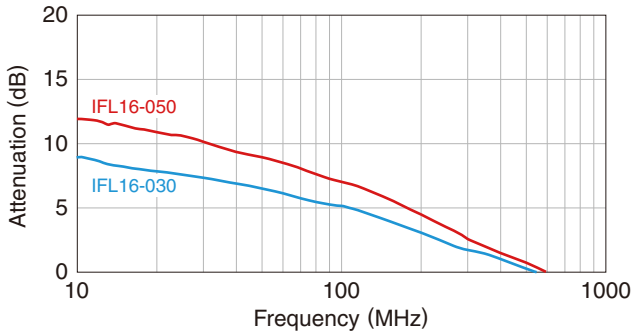
IFL10M



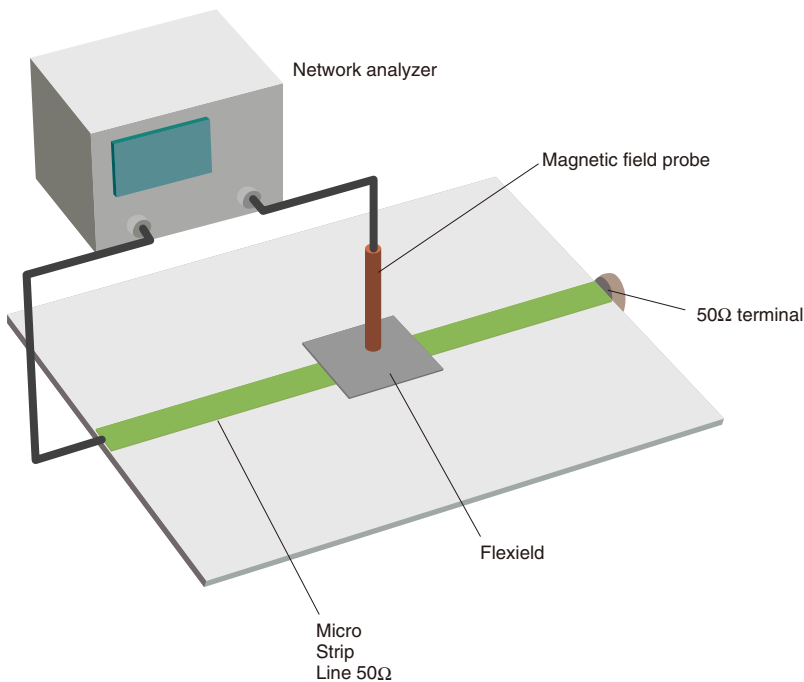
IFL12



IFL16



### NEIGHBORHOOD MAGNETIC FIELD ATTENUATION TESTING METHOD (Magnetic field measurement on the microstrip line)



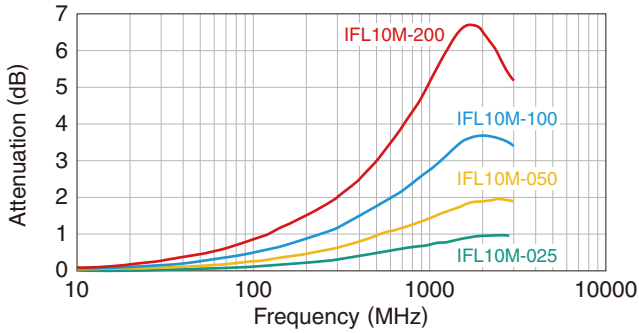
⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

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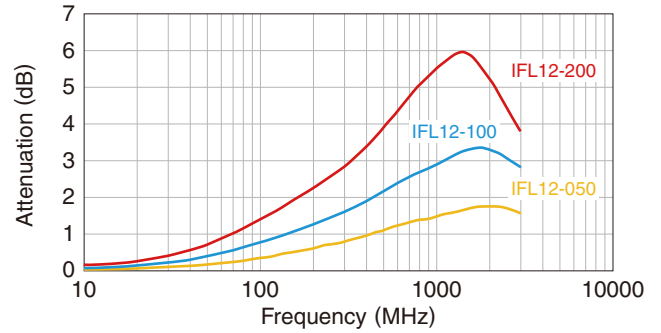
## MATERIAL CHARACTERISTIC

### TRANSMISSION ATTENUATION

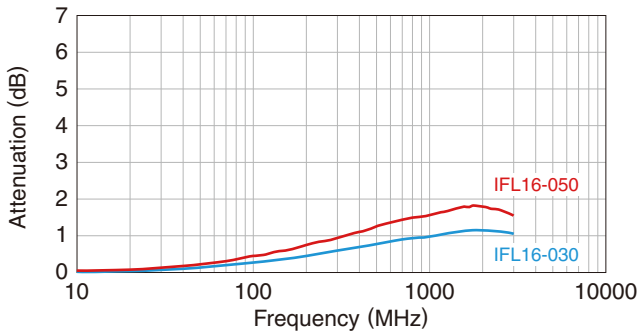
IFL10M



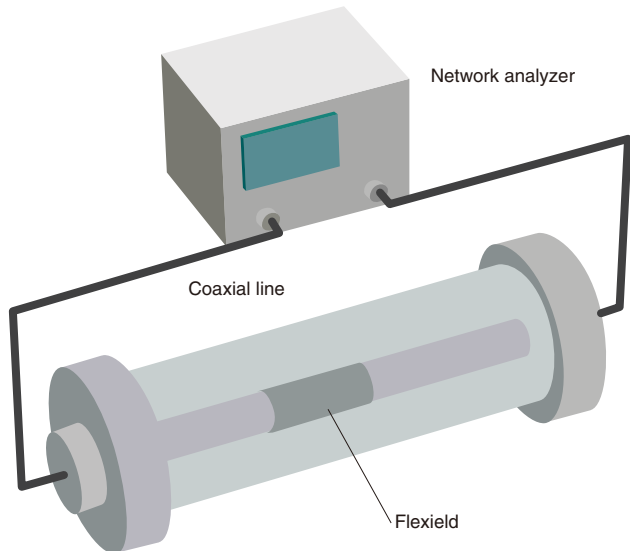
IFL12




IFL16



### TRANSMISSION ATTENUATION TESTING METHOD (Transmission measurement in a coaxial track)



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