Electromagnetic Shielding Paint
EMI 51ac

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○ Introduction

Nowdays, we are surrounded by electromagnetic waves emitted by a variety of devices including PCs, cell phones, and TVs. There are concerns that these electromagnetic fields may have some effect on human body and could cause the precision instrument of industrial machine and communication devices to malfunction and possibly compromise data security. Our EMI shielding paints "EMI Series" protect digital devices from electromagnetic interference, and are widely used in industry field.

○ Composition

Acrylic resin
Conductive materials (silver and copper)
Additives
Organic solvent

○ Features

EMI 51ac offers superior electrical conductivity and electromagnetic shielding function by using silver-copper hybrid material as conductive material. With our original reserch and innovation, EMI 51ac achieves to bond low cost and high performance together to meet your requirement.

○ Usage and Application

(1) Please stir the paint well before using to prevent from sediment and deposition.
(2) Please mix the base with thinner in proportion of 10 : 0.5~2
(3) Please use our special tinner "Thinner 1300S" for dilution.
(4) Drying time
Set-to-touch 25℃×10min
Forced drying 60℃～80℃×30min
(5) Standard film thickness : 25±5μm

○ Coating quantity(g/m²)

Mixed quantity : 300g/m²

○ Purpose

Electromagnetic shielding for various types of plastic and resin products (ABS,PC etc) .

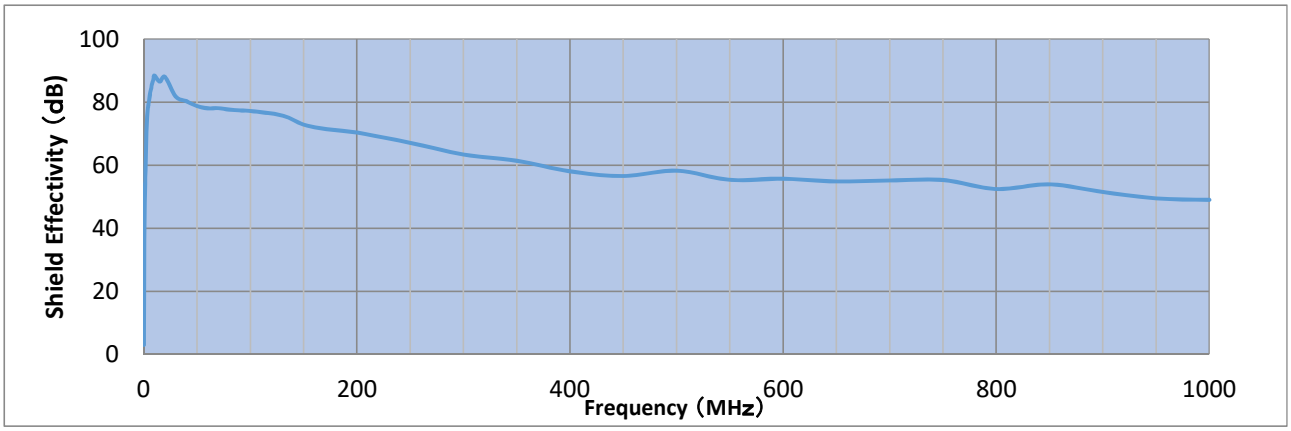
○ Film Performance 1

Test Item	Test Condition	Result	
Pencil Hardness	Film hardness tester using pencils, Mitsubishi Pencil	F≦	
Adhesion	Cross-cut test acrylic resin plate	100/100	
	Cross-cut test ABS plate(after being degreased)	100/100	
Electric conductivity	Two-terminal method (anode-cathode distance:10mm)	1.0Ω≧	
Resistance Value	Four-point probe method	$7.0\times10^{-2}\Omega$≧	
Surface Resistivity	Four-point probe method	$3.0\times10^{-1}\Omega/\square$≧	
Volume Resistivity	Four-point probe method	$7.0\times10^{-4}\Omega\cdot$cm≧	
Alcohol Resistance	Methanol rubbing 500g (round trips)	50 times≦	
Water Resistance	Put in purified water (ambient temperature) for 7 days and left at ambient temperature for another 24 hours	Visual Inspection	fine
		Adhesion	100/100
		Surface Resistivity	1.0Ω≧
Humidity Resistance	Put in 98% humidity at 50℃ for 7 days and left at ambient temperature for another 24 hours	visual inspection	fine
		Adhesion	100/100
		Surface Resistivity	1.0Ω≧
Heat Resistance	Put at 90℃ for 4 days and left at ambient temperature for another 24 hours	visual inspection	fine
		Adhesion	100/100
		Surface Resistivity	1.0Ω≧

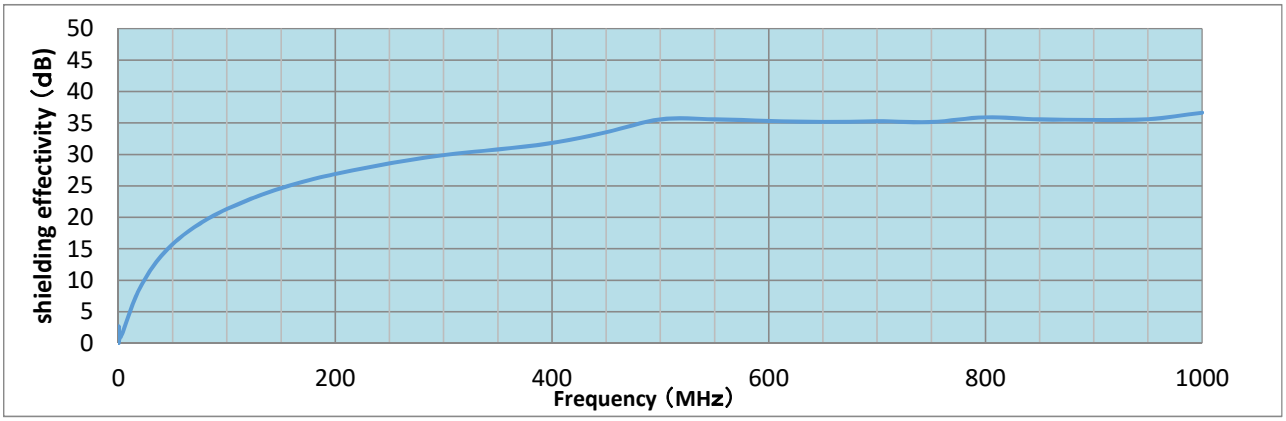
※Test condition: ABS plate (Adhesion test is as described above)
※The test data above is for reference only. Please confirm the test before actual use. The test result do not guarantee the quality and performance of our product under all conditions.

○ Film Performance 2 (Electromagnetic Shielding)

Electric Shielding※



Magnetic Shielding※



Test Condition 1.Film thickness : 20～25μm
2.Test plate material : Phenolic resin plate
3.Drying condition : 80℃×30min, and left at ambient temperature for another 3 days

※The test result do not guarantee the quality and performance of our product under all conditions.

○ Precautions

(1) About dangerous, harmful information, please refer to SDS.
(2) Before coating, please make sure the object to be coated is fully degreased.
(3) Using other diluent may impair the performance of film, Please use our specified diluent.
(4) Please use the diluted paint as soon as possible.
(5) The paint should be preserved in cold and dark places.
(6) Please use the paint within 3 months after shipment date, and use Thinner 1300S within 1 year after shipment date.
(7) This product is only suitable for indoor use, and should be avoided from direct sunlight for long time.
(8) Please fully stir the paint before using in case of the precipitation of the conductive materials.
(9) Since film thickness will affect shielding effectivity, please pay attention to the painting process and conduct film thickness management before and during painting.

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