

**The Conductive Paint for EMI Shielding**

**EMI 104n**

Edogawa Gosei Co., Ltd

## ○ [Our EMI Shielding Paints](#)

In today's world, 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 the human body and could cause the precision measurement system of industrial machine and communications devices to malfunction and possibly compromise data security. Our EMI shielding paints "EMI Series" protect digital devices from electromagnetic interference, and are widely used by the industry.

## ○ [A Massive Cost-Saving Benefit](#)

"EMI 104n" now saves nearly 35% more cost than its previous versions thanks to our continued research into the conductive mechanism and the optimal formulation of selected materials along with our manufacturing processes that enhance conductivity. We offer the best EMI shielding within your cost constraints.

## ○ [Simplicity and High Workability](#)

"EMI 104n" is a one-component, ambient dry coating paint based on acrylic resin, easier to use than the two-component paint that requires both main resin and curing agent. It is suitable for force drying at a temperature of 60 to 80°C in quantity production.

## ○ [Improved Storage Stability](#)

Unlike existing EMI shielding paints, "EMI 104n" can prevent the sediments of its conductive particles from solidifying upon long storage.\* The original coating properties will be restored by sufficient agitation prior to use.

\*Use within 3 months from the date of manufacture.

## ○ [Intended Use](#)

EMI shielding for plastic resin molds (ABS, PC, etc.)

## ○ [Composition](#)

Acrylic resin, organic solvent, conductive materials, additives

## ○ [Size](#)

- EMI 104n                    18 kg
- Thinner    1300    (S = for summer    W = for winter)            16 L

## ○ Use and Application

- Agitation  
Provide sufficient agitation before use to disperse the sediment.
- Mixing  
Use 10 parts of base to 5-8 parts of thinner by weight.  
Use our Thinner 1300.
- Drying
 

Set-to-touch	10 min. at 25°C
Dry-hard	5-6 hrs. at 25°C
Forced drying	30 min. at 60-80°C
- Film Thickness  
Standard film thickness: 30±5µm

## ○ Film Performance

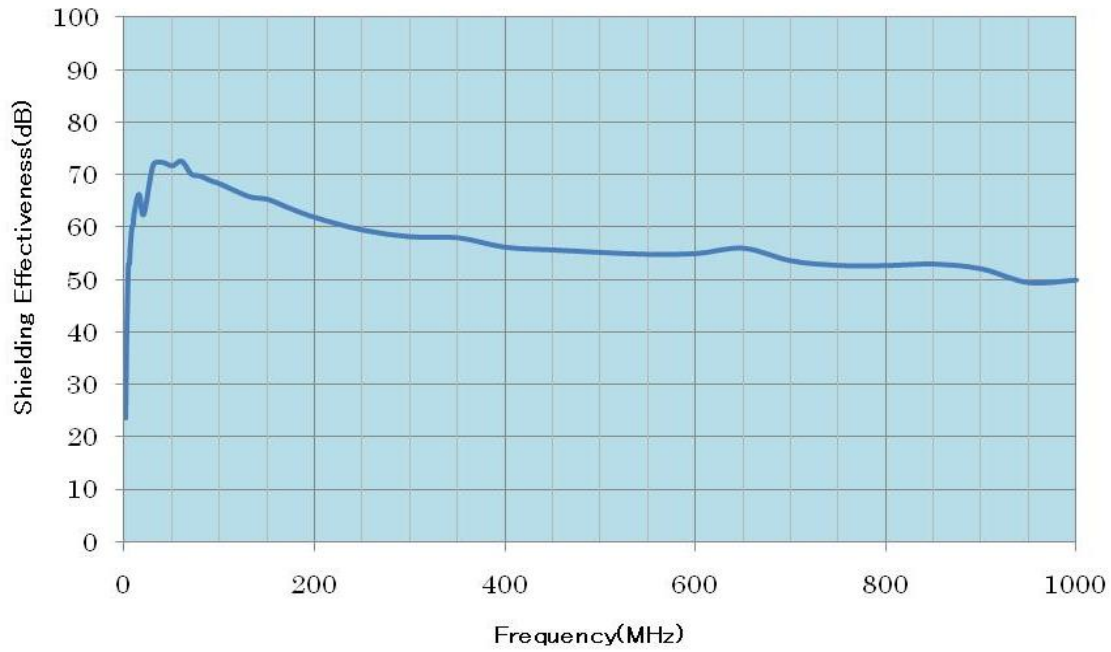
Test Item	Test Condition	Result	
Pencil Hardness	Film hardness tester using Mitsubishi UNI pencils	F ≤	
Adhesion	Degreased acrylic plate (Mitsubishi Acrylite Transparent)	100/100	
	ABS plate (degreased)	100/100	
Surface Resistance (25µm)	Two-terminal method (multimeter) $3\Omega \geq$	1.7Ω	
Alcohol Resistance	Number of fixed-force (500g) rubbings with IPA	over 50 rubbings	
Water Resistance	Immersed in purified water (ambient temperature) for 7 days and left at ambient temperature for another 24 hours.	Appearance	Slightly cloudy
		Secondary Adhesion	100/100
		Surface Resistance	$3\Omega \geq$
Humidity Resistance	98% humidity at 50°C for 7 days and left at ambient temperature for another 24 hours.	Appearance	Good
		Secondary Adhesion	100/100
		Surface Resistance	$3\Omega \geq$
Heat Resistance	At 90°C for 4 days and left at ambient temperature for another 24 hours.	Appearance	Good
		Secondary Adhesion	100/100
		Surface Resistance	$3\Omega \geq$

\* ABS plates were used except in the adhesion test.

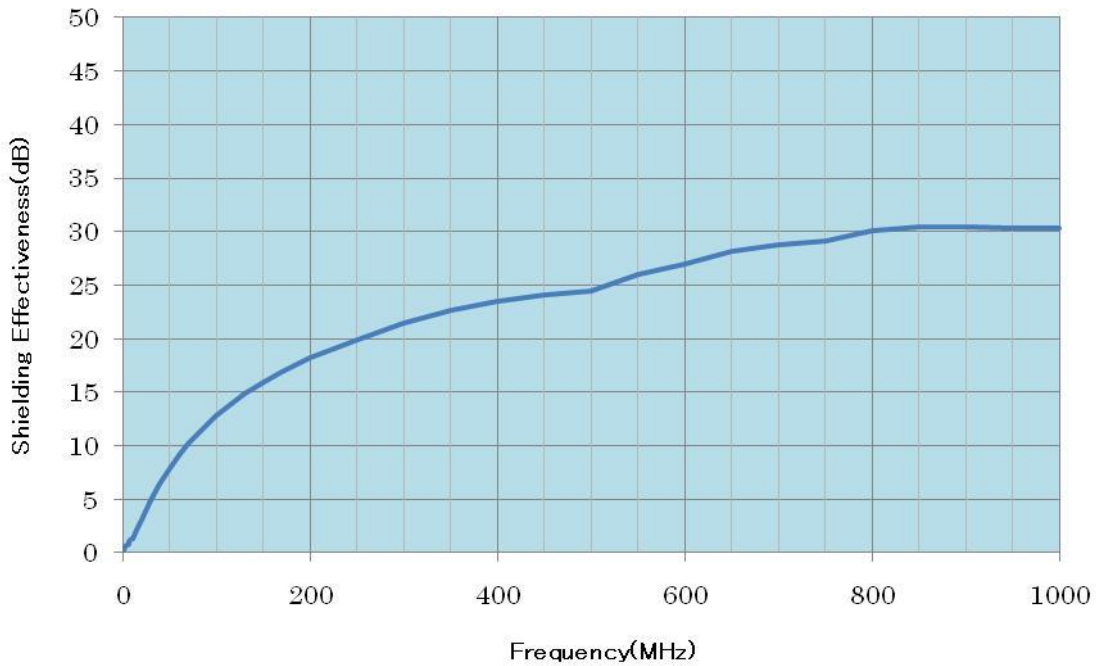
\* These results do not necessarily guarantee the quality and performance of our product under all conditions.

○ Film Performance (EMI Shielding)

**Electric Field Shielding Effectiveness**



**Magnetic Field Shielding Effectiveness**



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