

Soft magnetic molding material



Low-Frequency Magnetic Shielding Compound for Injection Molding

FEATURES

Low-frequency magnetic shielding compounds are soft magnetic materials mixed TODA KOGYO's soft ferrite powders or soft magnetic metal powders with thermoplastic resin, which have both excellent magnetic properties and injection moldability. It is possible to design ECUs, inverters and battery cases' housings with high magnetic shielding properties. In addition, further improvement in properties can be achieved by the combination with conductive materials. In addition, combining them with conductive materials enables the further improvement of their properties.

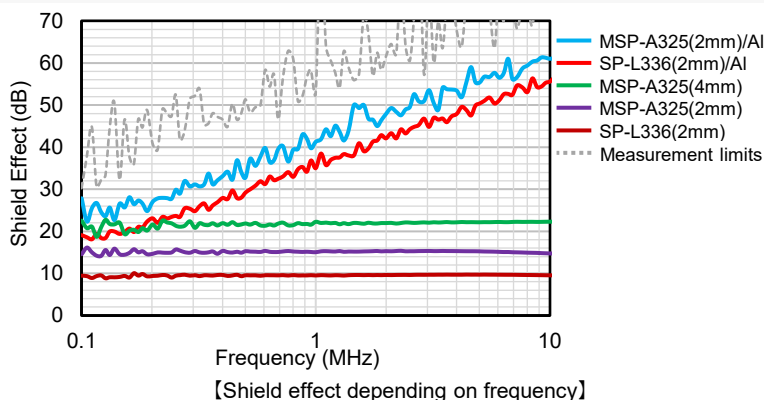
CHARACTERISTICS

- 1 **High permeability**
The high filling of magnetic powder enables superior permeability property.
- 2 **Excellent injection moldability**
The use of magnetic powders suitable for resin compounding enables excellent moldability.
- 3 **Resin selection according to demands**
Various resins such as PP, PBT, PPS and PA12 are also available.

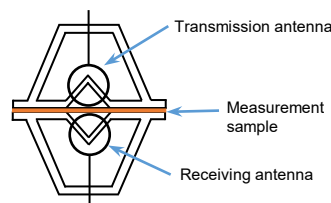
SPECIFICATIONS

[Properties of typical products]

	SP-L336	MSP-A325	
Material	Mn-Mg-Zn ferrite/PP	Fe-Si-Al/PP	
Molded density (g/cm ³)	3.6	2.5	
Permeability μ' @100kHz	21	28	
Permeability μ' @10MHz	20	24	
Volume specific resistance ($\Omega \cdot \text{cm}$)	$10^{15} \sim 10^{16}$	$10^{-1} \sim 10^0$	
Shield effect (dB) @100kHz	Without Al foil	10^{*2}	15^{*2}
	With Al foil ^{*1}	19^{*2}	28^{*2}



*1 Al foil with a thickness of 15 μm was used.
*2 Measured with a sample with a thickness of 2 mm
*3 Measured with a sample with a thickness of 4 mm



[Jig for measurement of magnetic fields attenuation (KEC method)]

APPLICATIONS

- Housings for electronic components that require low-frequency magnetic shielding, such as ECUs and inverters
- Noise suppression sheet

