



Soft magnetic material

# EMC Compound for Injection Molding

## FEATURES

EMC compounds for injection molding are soft magnetic mold materials mixed TODA KOGYO's soft ferrite powders or soft magnetic metal powders with PPS or PA resin, which have both excellent magnetic properties and injection moldability. It is possible to design inductor cores and structures with complicated shapes, parts and housings with various EMC functions such as leakage magnetic field reduction or magnetic shielding.

## CHARACTERISTICS

- 1 **High permeability**  
The high filling of magnetic powders enables superior permeability property.
- 2 **Excellent injection moldability**  
Usage of magnetic powders suitable for resin compounding enables excellent moldability.
- 3 **Resin selection according to demands**  
Super engineering plastics used in automobile are also available.

## SPECIFICATIONS

[Typical specifications]

Product name	Resin	Magnetic powder (Filler)	Molded density	Flowability MFR	$\mu'$ at 10MHz	Magnetic flux density B	Deflection temperature under load*	Bending strength	Impact strength	Linear expansion coefficient
			ASTM-D792 (g/cm <sup>3</sup> )	ASTM-D1238 (g/10min)	- (-)	- (mT)	ISO 75-2 (°C)	ASTM-D790 (MPa)	ASTM-D256 (kJ/m <sup>2</sup> )	JIS K 7197 (×10 <sup>-5</sup> /°C)
SP-I247AEN	PA12	Iron powder	5.0	400 [270°C/5kgf]	10.5	1,220	112	60	9	6.6
MC100LK31	PA6	Mn-Mg-Zn ferrite	3.3	55 [270°C/10kgf]	16.5	160	172	120	6	4.1
SP-N736	PPS	Ni-Zn ferrite	3.6	40 [300°C/5kgf]	16.4	250	215	95	5	2.2

\*Direction: flatwise, Bending stress: 1.80MPa

## APPLICATIONS

- Inductor cores or structures
- Parts and housings with function of electromagnetic wave absorption, magnetic shielding or noise suppression applications

