

Mector® HU Ultra-High Permeability EMI Absorbing powder

HU Series EMI Absorbing powder

The Mector® HU series EMI absorbing powders comprising multiple alloying elements, formulated such that both the magnetostriction coefficient (λ_s) and the magnetic anisotropy constant (K_1) approach zero at this composition. As the diameter-to-thickness ratio increases, the magnetic permeability exceeds that of conventional soft magnetic alloy powders. When used as a raw material, the resulting EMI absorbing materials offer the advantages of ultra-high magnetic permeability, high electrical resistivity and low loss, whilst also providing EMC protection for materials operating at higher frequencies.

Product Features and Advantages

- Ultra-high aspect ratio (diameter-to-thickness ratio);
- Ultra-high permeability μ' : 300–500, with customizable multi-element alloy formulations;
- Halogen-free and environmentally compliant, meeting EU RoHS and REACH regulatory requirements.

Typical Applications

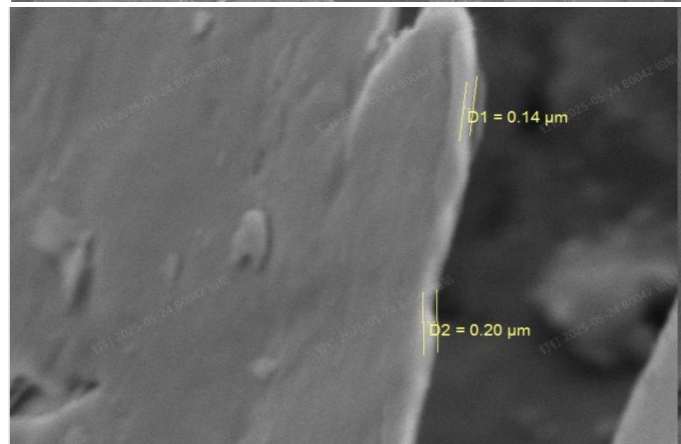
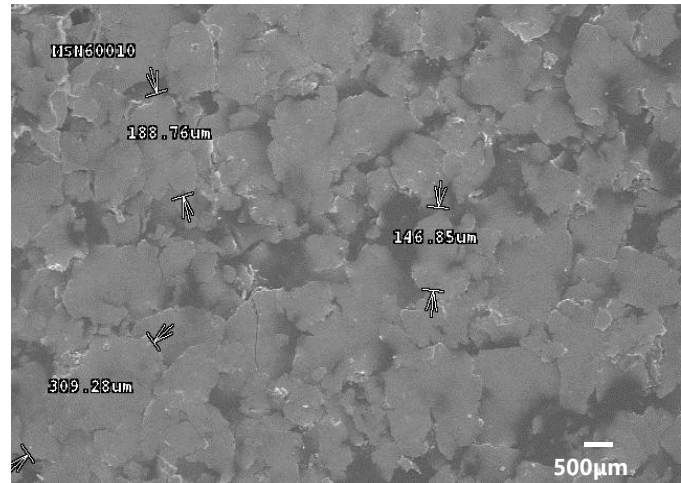
- Thin-film EMI absorbing materials;
- End-use applications: Wireless charging (WPC), high-frequency inductors.

Supply Method

- 20 kg/drum;
- When placing an inquiry, please provide the product model and packaging requirements.

Instructions for Use

- The permeability was measured using magnetic sheets with a thickness of 50 μm , prepared with 50 vol.% powder loading;
- The material can be directly used according to the customer' s application requirements.

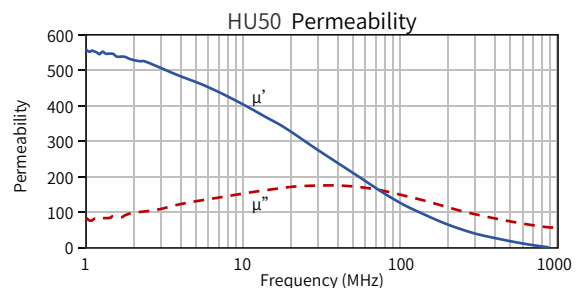
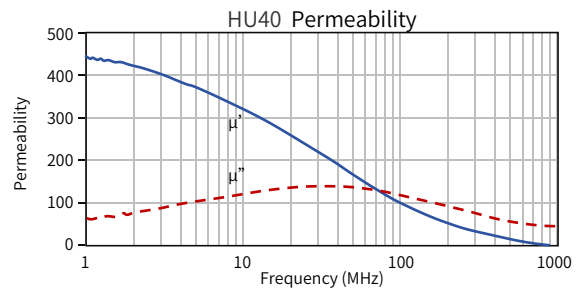
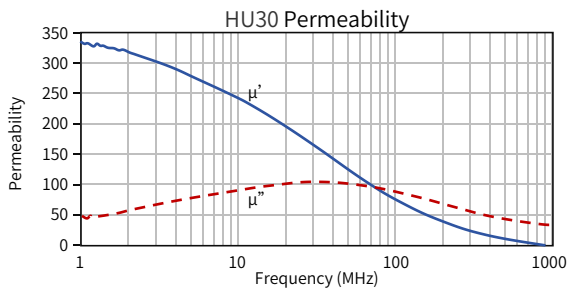


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Test items	HU30	HU40	HU50	Test method
A.D (g/cm ³)	0.4 - 0.5	0.35 - 0.45	0.3 - 0.4	GB/T 1479.2-2011
T.D (g/cm ³)	0.7 - 1.2	0.7 - 1.2	0.7 - 1.2	GB/T 5162-2006
D10 (μm)	35 - 75	40 - 80	45 - 85	GB/T 19077.1-2008
D50 (μm)	160 - 200	180 - 220	200 - 240	GB/T 19077.1-2008
D90 (μm)	290 - 330	320 - 360	340 - 380	GB/T 19077.1-2008
μ'@3MHz	270 - 330	360 - 440	450 - 550	GB/T 32596-2016
Frequency (Hz)	Sub-1G	Sub-1G	Sub-1G	GB/T 32596-2016
Delivery (customizable)	20kg/drum			
Storage conditions	5 - 40°C/ (60±10) %RH			
保存期限	36个月			

Note: The data is provided for the reference of design engineers only. The performance figures given above represent the performance range of the product series; actual performance may vary between different models and in different application environments. Engineers should conduct tests based on the specific operating conditions.



Coding Rules

HU 30 - X

① ② ③

- ① Product category: HU = Ultra-high permeability
- ② Permeability: 30 = 300 permeability
- ③ Special code: e.g. different formulation systems or special requirements

Disclaimer:

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