Mector® HL Series

HL Series High Loss Absorbent Powder

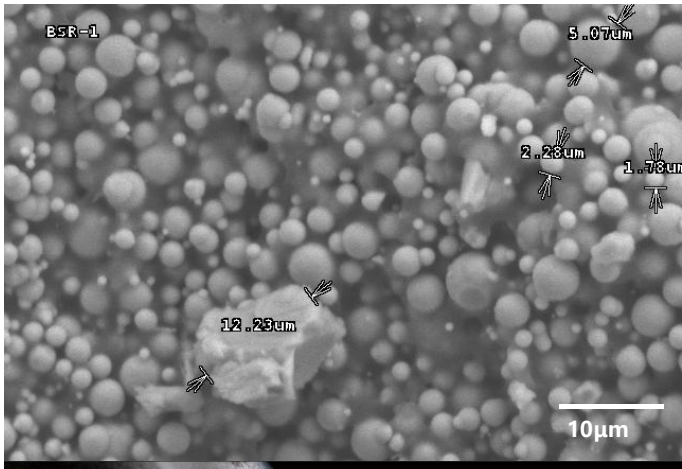
Mector™ HL High-Loss Radar-Absorbing Base Powder is a soft magnetic powder featuring fine spherical morphology and ultra-fine particle size. To achieve wave-absorbing performance in customized frequency bands and excellent processability, the powder undergoes multiple classification and composite modification treatments, enhancing wave-absorbing efficiency, optimizing dispersibility and preventing agglomeration. It delivers superior electromagnetic properties, satisfies impedance matching, and achieves better wave-absorbing effects.

$$Z_0 = \sqrt{\frac{\mu_0}{\varepsilon_0}}$$

$$R_L = 20\lg\left|\frac{Z_{in} - Z_0}{Z_{in} + Z_0}\right|$$

$$Z_{in} = Z_0\sqrt{\frac{\mu_r}{\varepsilon_r}}\tanh\left[j\left(\frac{2\pi fd}{c}\right)\sqrt{\varepsilon_r\mu_r}\right]$$

$$\alpha = \frac{\sqrt{2}\,\pi f}{c}\sqrt{(\mu''\varepsilon'' - \mu'\varepsilon')^2 + \sqrt{(\mu'\varepsilon'' + \mu''\varepsilon')^2 + (\mu''\varepsilon'' - \mu'\varepsilon')^2}}$$



Product Features & Advantages

- Average particle size ＜10 μm with high purity;
- Excellent batch-to-batch quality stability, customizable for specific frequency bands;
- Halogen-free and eco-friendly, complying with EU RoHS Directive, REACH and other regulatory requirements.

Typical Applications

- EMI wave-absorbing films and coatings;
- Notebook GPU, CPU, DDR, motherboard (MB), SSD, OLED devices.

Supply Form

- 25 kg per drum;
- Please provide model and packaging requirements upon inquiry.

Usage Method

- Permeability is measured using 1 mm-thick magnetic sheets containing 50 vol.% absorbing powder;
- Direct application is available based on customer-specific conditions.

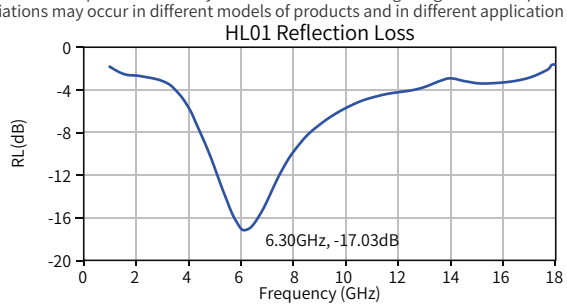
WAVE VECTOR
铂韬新材

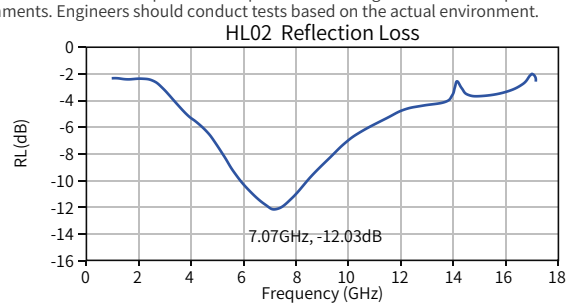
Mector® HL Series

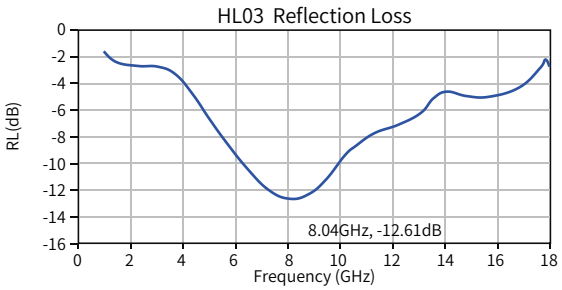
HL Series High Loss Absorbent Powder

Item	HL01	HL02	HL03	Test Standard
A.D (g/cm^3)	2.6 - 3.4	2.6 - 3.2	2.2 - 2.8	GB/T 1479.2-2011
T.D (g/cm^3)	4.0 - 5.0	4.0 - 5.0	4.0 - 5.0	GB/T 5162-2006
D10 (μm)	1.0 - 2.0	1.5 - 3.0	1.0 – 3.0	GB/T 19077.1-2008
D50 (μm)	2.5 - 3.5	4.0 - 6.0	2.0 - 4.0	GB/T 19077.1-2008
D90 (μm)	4.5 - 7.5	9.0 - 12.0	3.5 – 5.0	GB/T 19077.1-2008
Reflection loss (dB)	-17	-12	-12	GJB 2038A-2011
Center frequency (Hz)	6G	7G	8G	GJB 2038A-2011
Operating frequency (Hz)	1- 26.5G	1 - 40G	1 - 40G	GJB 2038A-2011
Shipping specifications (customizable)	25 kg/barrel			
Storage conditions	5 - 40°C/（60±10）%RH			
shelf life	36 months			

Note: The data provided is solely for the reference of design engineers. The performance mentioned above represents the performance range of the series of products. Variations may occur in different models of products and in different application environments. Engineers should conduct tests based on the actual environment.







Coding Rules

HL 01 - X

① ② ③

① Product category: HL=High reliability

② 01 represents the serial number and carries no special meaning

③ Special code: such as different formula systems or special requirements

*Benchmarking product of MCS from internationally renowned L company

WAVE VECTOR 钼韬新材

Suzhou Wave-Vector New Material Technology Co., Ltd.
Address: No. 1 Zengshan Road, Kunshan City, Jiangsu Province, P.R.China
marketing@wave-vector.com
www.wave-vector.com

Statement:
The information contained in this TDS is intended to assist you in designing product applications using the materials provided by Platinum Tao New Materials. It is not intended to, and does not, constitute any express or implied warranties, including any warranties regarding the merchantability of the goods or their suitability for a particular purpose. For product safety, please refer to our Material Safety Data Sheet (MSDS) No. BTXC-RD-TDS-041 V1.0