

DATA SHEET

M12

Materials specification

2021/06/24



高科磁技股份有限公司
中鋼集團

Materials specification

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M12 SPECIFICATIONS

	CONDITIONS	VALUE	UNIT
μ_i	25°C;10 kHz;0.25mT	12000 $\pm 30\%$	
	25°C;100 kHz;0.25mT	12000 $\pm 30\%$	
B_s	25°C;10 kHz;1200A/m	440	mT
	100°C; 10 kHz;1200A/m	250	
$\tan\delta / \mu_i$	10kHz, 25°C,0.25mT	<10	$\times 10^{-6}$
	100kHz, 25°C,0.25mT	<30	
ηB	10KHz, 25°C,1.5-3.0mT	≤ 0.3	10^{-6} /mT
ρ	DC;25°C	0.5	Ωm
T_c		≥ 130	°C
Density		5000	kg/m^3

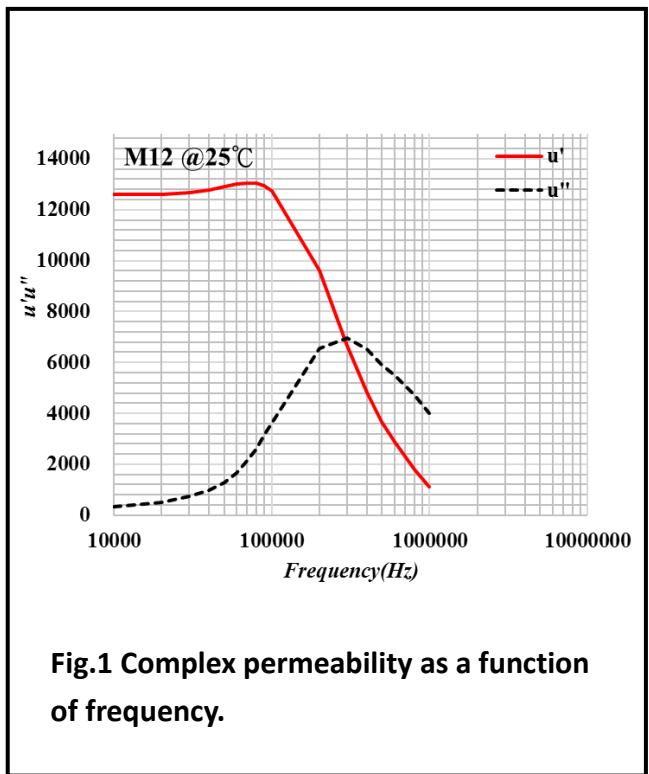


Fig.1 Complex permeability as a function of frequency.

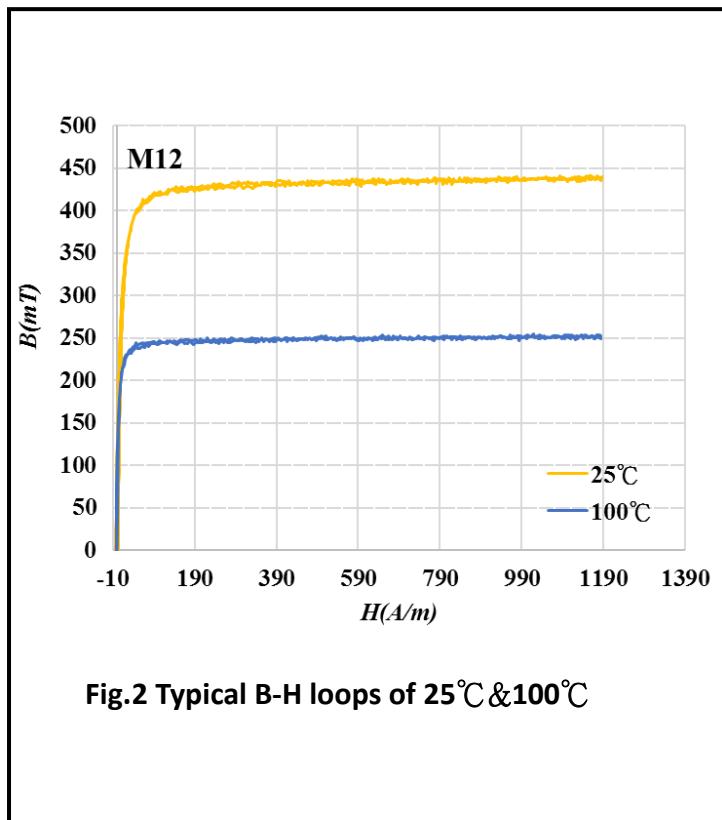


Fig.2 Typical B-H loops of 25°C & 100°C

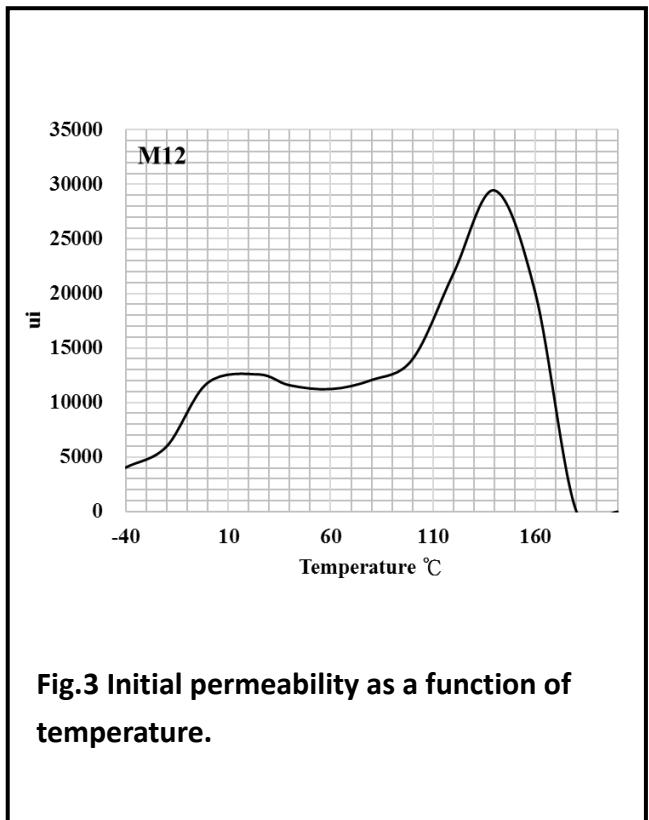


Fig.3 Initial permeability as a function of temperature.

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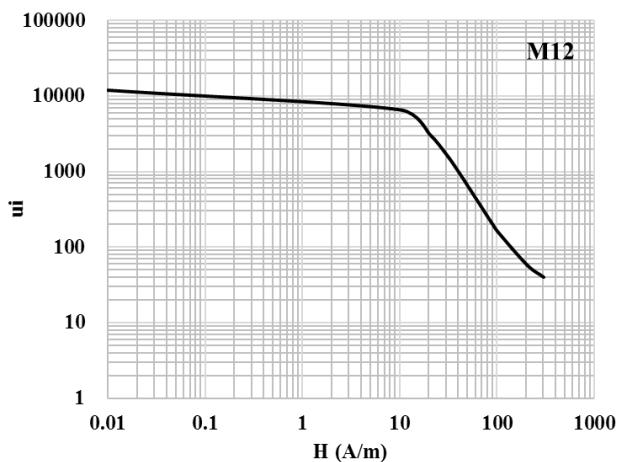
M12

Fig.4 Reversible permeability as a function of magnetic field strength.

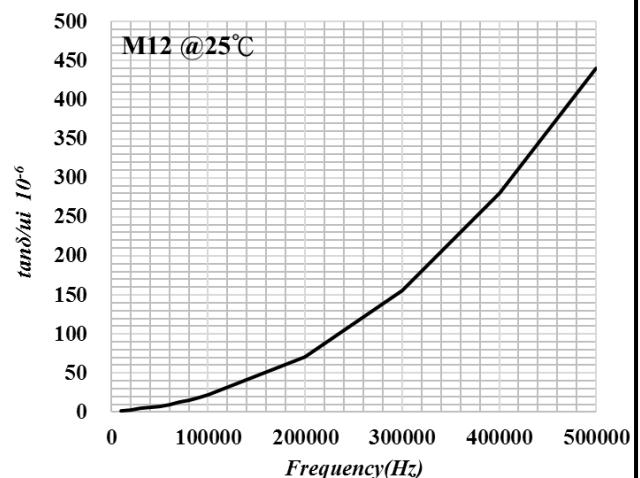


Fig.5 Loss factor in function of frequency.