

Nanocrystalline and Amorphous

Amorphous Alloy Magnetic Sensor

Material characteristics and use:

Amorphous narrow strip is called label, which is mainly used as signal sensor of intrusion system and boasts favourable hiding property and high sensitivity. Higher harmonic wave may be generated in a certain AC superposed magnetic field to act as anti-theft alarm signal source effectively and safely. Magnetic label has been widely used for anti-theft systems of the libraries and sensing elements for other systems, for example anti-theft system of the market.

Product specification:

(0.04 0.005) (2 0.2) L (mm) strip is made of Co-based non-crystalline (SFC302) and Fe-based non-crystalline (SFC103), and shall be cut into a certain length as required by anti-theft system, which may be used for book and commodity anti-theft systems.

Physical performance of product

Performance	Alloy Brand	
	SFC302	SFC103
Saturation induction density Bs(T)	0.55	1.32~1.46
Coercive force Hc(A/M)	3.0~7	4.0~7.2
Curie temperature Tc(°C)	253	287
Crystallization Tx(°C)	532	549
Magnetostriction coefficient S(10 ⁻⁶)	~0	4.6
Density (g/cm ³)	7.86	7.39
Warning sensitivity S(mv)	85~90	80~85

* L=165mm, measured value of JX-3 type tester