

Nanocrystalline and Amorphous

Amorphous and Microcrystalline Alloyed Material

Chemical composition of amorphous and nanometer crystallite soft magnetism (at%)

Grade	Fe	Co	Ni	Si+B	M	Name
TIE-C-AN01	76-80	-	-	20-24	-	FeSiB amorphous quickly soft quenched magnetic alloys
TIE-C-AN02	71-77	-	-	18-25	1-10	FeCrSiB amorphous quickly soft quenched magnetic alloys
TIE-C-AN03	G	70-75	-	20-28	1-7	FeCuNbSiB nanometer crystallite soft magnetic alloys
	D					
TIE-C-AN04	3-5	65-68	-	26-32	1-4	High square ness ratio Co basic amorphous soft magnetic alloys
TIE-C-AN05	4-5	66-68	-	21-30	2-7	Low iron loss Co basic quickly soft quenched magnetic alloys
TIE-C-AN06	40-50	-	28-30	21-24	1-2	FeNiVSiB quickly soft quenched magnetic alloys

Notice :

- 1) "M" is one or some additional metal or element, for example: "C, Mo, Ni, V, P, C and soon
- 2) Chemical composition is not used to determinant good or bed of the properties of products, so do not provide to users generally.
- 3) The letter "G" means the material used in high frequency, "D" means the material used in low frequency.

The magnetic performance of the amorphous and nanometer crystallite soft magnetic alloys ribbon

Grade	Magnetic induction B800(T)	Coercive force Hc(A/m)	Initial permeability μ 0.08(mH/m)	Specific iron loss (W/kg)			Remark	
				P _{1.3/50}	P _{0.4/10k}	P _{0.5/20k}		
	>=	<=	>=	<=				
TIE-C-AN07	1.5	3.0	-	0.2	-	-	Transformer in middle and low frequency, reactor, inductor	
TIE-C-AN08	1.3	4.0	-	-	35	-	Transformer in middle and low frequency, The magnetic for thicket	
TIE-C-AN09	G	1.0	1.6	75	-	-	40	High transformer Current transformer, Magnetic amplifier, Inductor
	D	1.0	0.8	120	-	-	-	Precision current transformer Zero sequence current transformer
TIE-C-AN010	0.50	1.0	87.5	-	-	25	High transformer, Magnetic amplifier Saturable reactor Suppressor High frequency converter	
TIE-C-AN011	0.70	3.0	-	-	-	-	Magnetic shield, The magnetic for thicket	
TIE-C-AN012	0.80	2.0	-	-	30	-	Zero sequence current transformer Magnetic shield	

Notice :

- 1) μ 0.08 means the permeability at 0.08A/m magnetic force
- 2) B800 means the inductance at 800A/m magnetic force
- 3) P1.3/50 means the specific iron loss at 1.3T amplitude inductance and 50Hz frequency
P0.4/10k means the specific iron loss at 0.4T amplitude inductance and 10kHz frequency
P0.5/20k means the specific iron loss at 0.5T amplitude inductance and 20kHz frequency