TAK

PROPERTIES OF TAK MATERIALS (TAK 材質表)

Mn-Zn Ferrite Series (For High μ MATERIALS) 錳一鋅氧化磁鐵粉系列(高頻使用)

CHARACTERISTICS(特性)	UNIT(單位)	T2	T3	T5	T7	TP40	T10	T2M
μiac (初透磁率)	----	2800	3500	5500	7500	2400	9800	2000
APPLICABLE 適用 FREQUENCY 頻率	MHz(百萬赫茲)	<0.4	<0.2	<0.1	<0.1	<0.4	<0.1	<0.5
Bm(飽和磁束密度)	Gauss(高斯)	4800	4600	4000	4000	5100	4500	5100
Br(殘留磁束密度)	Gauss(高斯)	1400	1350	1250	1250	1100	1200	1300
Hc(保持力)	Oersted(奧斯特)	0.15	0.18	0.08	0.07	0.13	0.08	0.12
Tc(居禮溫度)	°C(攝氏)	200	180	110	110	210	140	220
$\alpha\mu$r(溫度係數)	X10^{-6}/°C(攝氏)	4	1.5	1.5	0.6	8	-0.1	6
Tan δ / μiac (相對損失因子)	X10^{-6}	10	8.0	20	25	5	2	8
d(密度)	g/cm^3(公克/立方公分)	4.8	4.8	4.9	4.9	4.8	4.8	4.9
ρ(表面阻抗)	Ω cm(歐姆)	300	30	15	10	650	50	600

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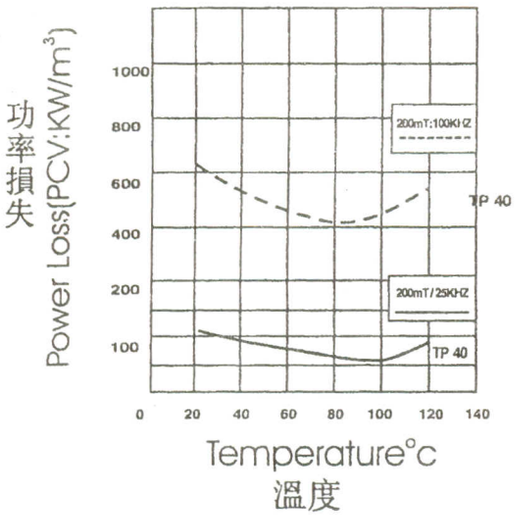
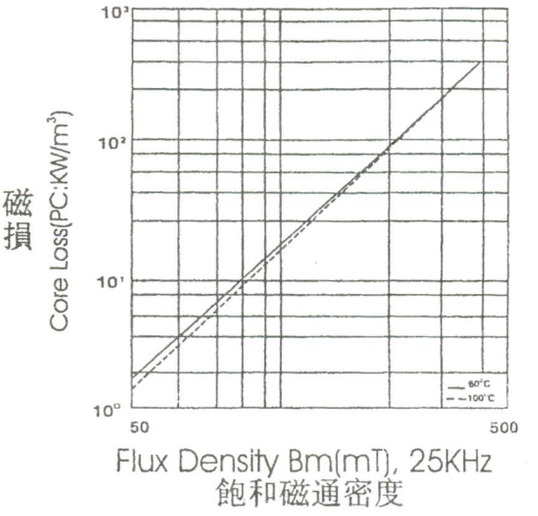
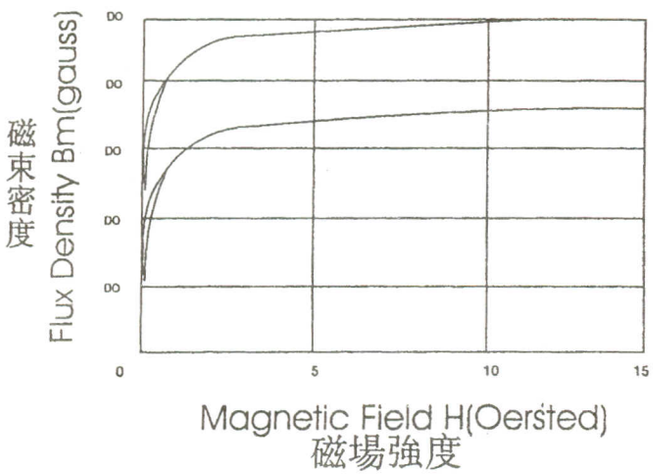
CHINA PLANT:TEL:(86-762)-4329901 FAX:(86-762)4329002 E-mail:sales7@takferrite.com

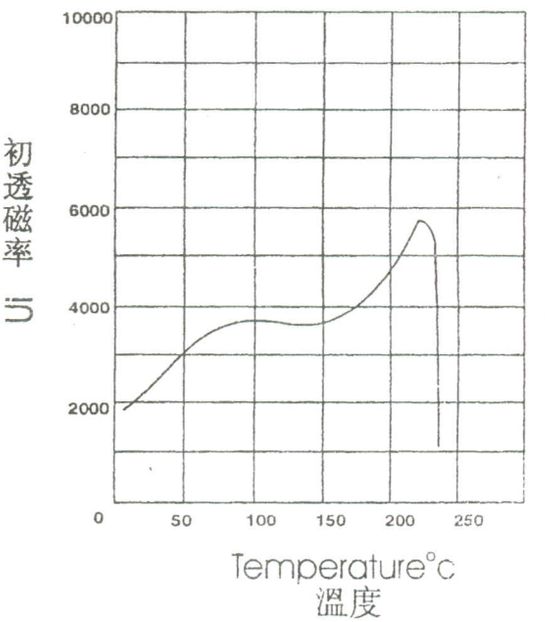
MATERIAL TP 40 CHARACTERISTICS (TP 40材质特性)

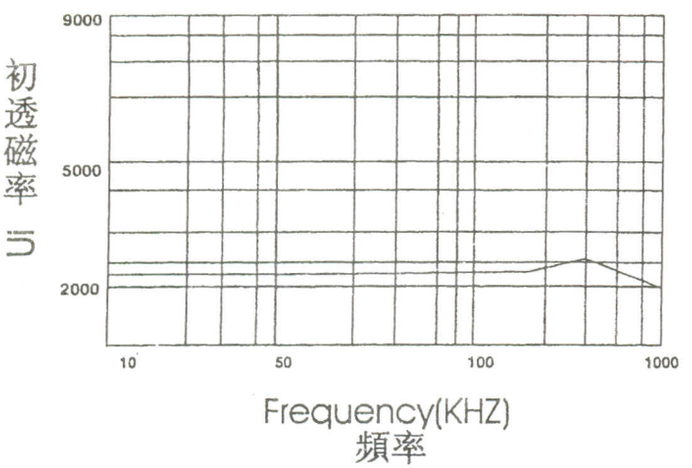
TAK











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PROPERTIES OF TAK MATERIALS

TAK

CHARACTERISTICS	UNIT	T2	TP40
μiac	----------	2800	2400
APPLICABLE FREQUENCY	Mhz	< 0.4	< 0.4
Bm	Gauss	4800	5100
Br	Gauss	1400	1100
Hc	Oersted	0. 15	0. 13
Tc	℃	200	210
$\alpha\mu$T	x10^{-6}/℃	4	8
Tan δ / μiac	x10^{-6}	10	5
d	g/ cm^3	4.8	4.8
ρ	Ω cm	300	650

- μ iac (AC intial permeability): This is the permeability when a demagnetized core is measured in a weak AC magnetic field.
- tan δ / μ iac (Relation loss factory) :This indicates the ratio of tan δ to μ iac.
- $\alpha\ \mu$ r(Temperature factory of permeability): This indicates the temperature dependence of permeability and is defined by following formula; $\alpha\ \mu r = \frac{1}{T1 - T2} \frac{\mu 2 - \mu 1}{(\mu 1)^2}$
- Tc(Curie t emperature):This is the transition temperature when the magnetism of the ferrite core changed from ferromagnetism to paramagnets.
- Bm(Effective flux density) : This is the magnetic flux density when Hms is applied.(Refer to the figure below.).
- Br (Effective retentively) :This is the magnetic flux density that remains after the strength of the magnetic field has been reduced to zero following demagnetization from a state of saturation.(Refer to the figure below.).
- Hc(effective coercive force) : This is the strength of the magnetic field on the opposite direction that is necessary to reduce the magnetic flux density to zero following demagnetization from a state of saturation.(Refer to the figure below.).

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CHINA PLANT: TEL:(86-769)-86310390 FAX:(86-769)-86310396 E-mail:takcoltd@pub.dgnet.gd.cn

Test Report

TAK TECHNOLOGY CO.,LTD
NO.3RD INDUSTRIAL AREA JUZHOU SHIJIE TOWN DONGGUAN CITY GUANGDONG PROVINCE CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as :
TP40 MATERIAL FERRITE CORE

SGS Job No.	:	10870088 - SZ
SGS Internal Reference No.	:	18.17
Date of Sample Received	:	29 Feb 2008
Testing Period	:	29 Feb 2008 - 04 Mar 2008
Test Requested	:	Selected test(s) as requested by client.
Test Method	:	Please refer to next page(s).
Test Results	:	Please refer to next page(s).

Signed for and on behalf of
SGS-CSTC Ltd.

Huang Fang, Sunny
Sr. Engineer

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Test Results:

ID for specimen 1 : CAN08-005561.017

Description for specimen 1 : Dk-gray core

Heavy metal(s)

Test Item(s)	Unit	Test Method (Reference)	Result	MDL
Cadmium (Cd)	mg/kg	IEC 62321/2nd CDV (111/95/CDV), ICP-OES	N.D.	2
Lead (Pb)	mg/kg	IEC 62321/2nd CDV (111/95/CDV), ICP-OES	167	2
Mercury (Hg)	mg/kg	IEC 62321/2nd CDV (111/95/CDV), ICP-OES	N.D.	2
Hexavalent Chromium (CrVI) by alkaline extraction	mg/kg	IEC 62321/2nd CDV (111/95/CDV), UV-Vis	N.D.	2

Note:

1. mg/kg = ppm
2. N.D. = Not Detected (< MDL)
3. MDL = Method Detection Limit

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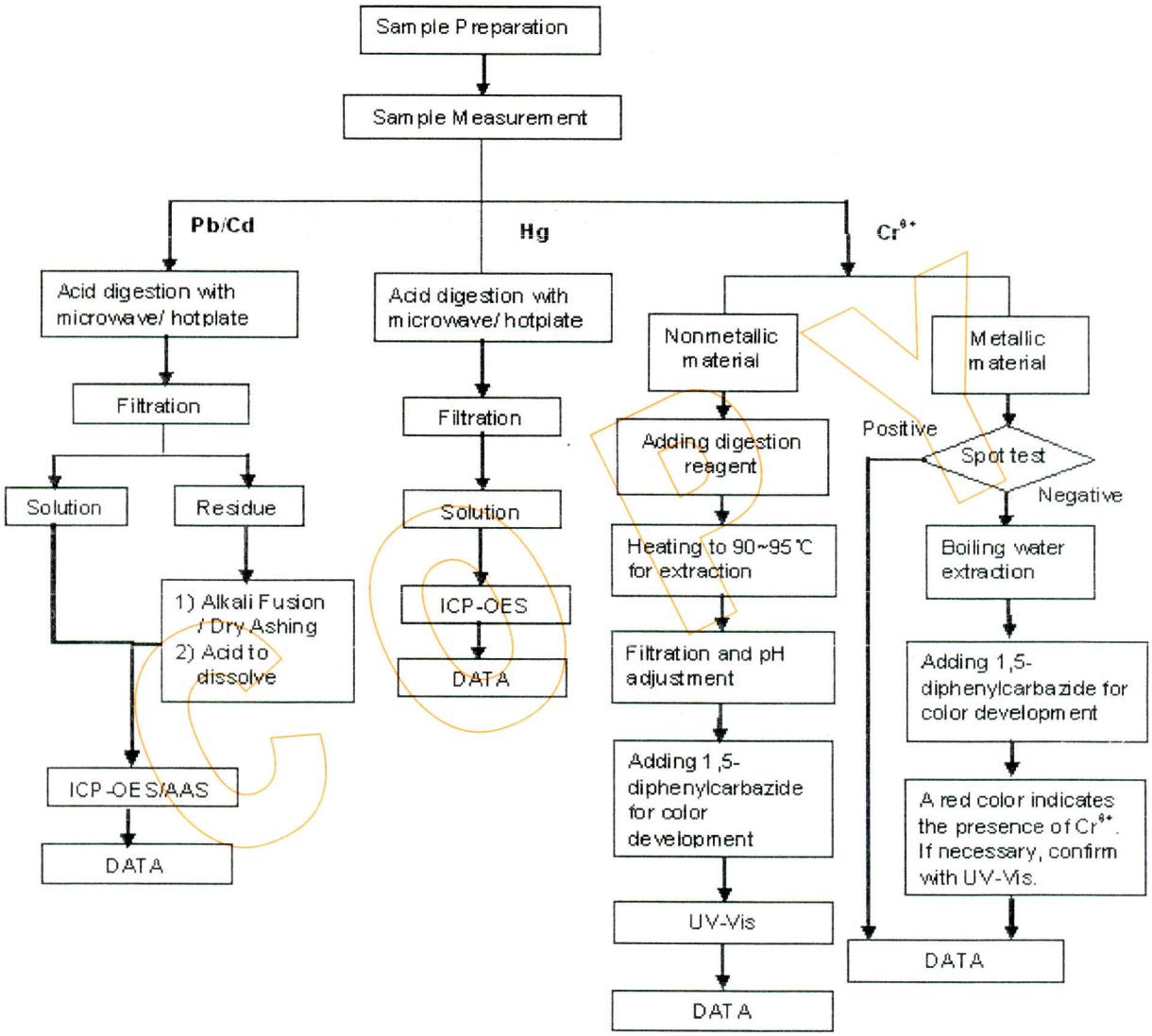
ATTACHMENTS

Testing Flow Chart

1) Name of the person who made measurement: David Shen
2) Name of the person in charge of measurement: Emily Feng



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Sample photo:

CAN08-005561.017

SGS authenticate the photo on original report only

*** End of Report ***

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