

Magnetite for Toner

SAEHAN MEDIA



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The Company



Saehan Media Corporation is the world's largest magnetic tape supplier with 26% of the worldwide market share. Based in Korea, Saehan Media Corporation has had long belief in business providing customers with excellent products since the company was founded in 1967. Global needs of Saehan products have led to establishing its operations throughout America (Saehan Media America, Saehan Media Mexico) and Europe (Saehan Media Ireland).

Although the magnetic media business is still a thriving market, Saehan Media has not stopped the technological advances. Saehan Media began manufacturing and selling Mini Discs in June of 1998 and has been successfully marketing CDR and DVDR as the optical disc market developed. Moreover, Saehan Media is continuously researching and developing the IT related materials, such as Insulation film and ACF (Anisotropic Conductive Film), to meet the needs of next generation.

Above all, with support of its rich technology and experience in the magnetic tape sector for about 37 years, Saehan Media has completed the development of the magnetite for toner, based on its own technology on magnetic iron oxides, in 2000. As a result, current production capacity of the Iron oxide is estimated to be between 8,000 and 9,000 tons per year.

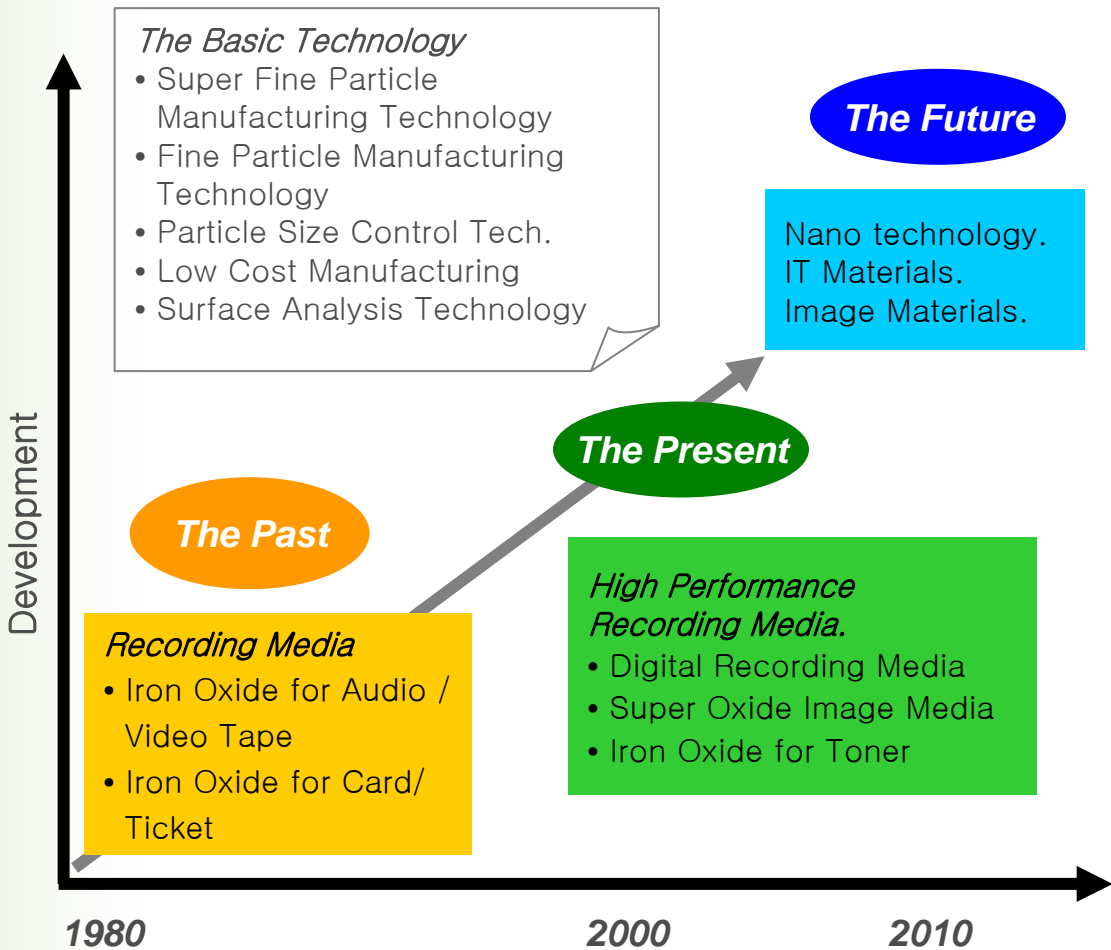
As Saehan Media has invested heavily in research and development of the products related to magnetite and iron oxide, Saehan Media is convinced that it will continue to achieve a further success in this industry.

The History

History of Iron Oxide Plant

- 1967.05** *Saehan Media was founded*
- 1986.10** *Magnetic Iron Oxide plant established*
- 1987.10** *Mass production of Iron oxide first in Korea*
- 1993.12** *Improvement of high dispersed Video oxide*
- 1994.12** *Developed Audio oxide (EP-060)*
- 1997.01** *Developed fine particle iron oxide for video tape (high BET, EP-320)*
- 1998.10** *Pure Iron sulfate plant established (EP-288)*
- 1999.05** *Developed Cobalt Modified Magnetite (EP-288M / EP-350)*
- 2000.08** *Developed Magnetite for Toner (SMT-2000)*
- 2001.12** *Developed Magnetite for Toner (SMT-01S)*
- 2002.06** *Developed Magnetite for Toner (SMT-02H)*





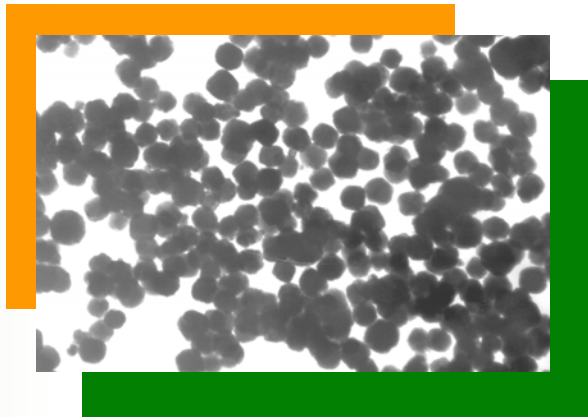
R & D Trend of Saeham Media



SMT-01S

Application

SMT-01S is spherical in shape and designed for use in LBP (laser beam printer) as magnetic mono component toner system.



Particle shape
Spherical type

CAS No. 1317-61-9
Chemical designation Synthetic iron oxide Fe_3O_4

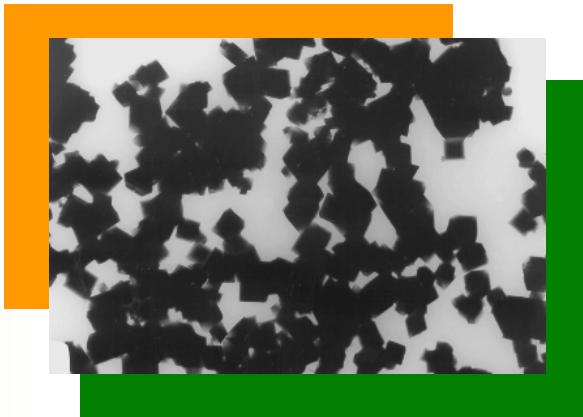
Powder Properties

Hc (Coercivity)	Oe	60
σ_s (Saturated Magnetization)	emu/g	85
σ_r (Remained Magnetization)	emu/g	5.0
AD (Apparent Density)	g/ml	0.8
OA (Oil Absorption)	ml/20g	2.72
pH	—	6.0
BET (Specific Surface)	M^2/g	8.5
Aver. Size	μm	0.30

SMT-2000

Application

SMT-2000 is middle Hc(Coercivity) magnetite for toner. A cubic type magnetite for toner including copier and printer applications.



Particle shape

Cubic type

CAS No.

1317-61-9

Chemical designation

Synthetic iron oxide Fe₃O₄

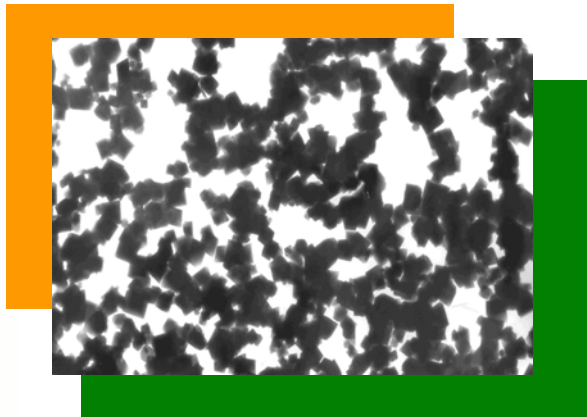
Powder Properties

Hc (Coercivity)	Oe	100
σs(Saturated Magnetization)	emu/g	88
σr (Remained Magnetization)	emu/g	9.4
AD (Apparent Density)	g/ml	0.5
OA (Oil Absorption)	ml/20g	2.72
pH	-	8.0
BET (Specific Surface)	M ² /g	4.7
Aver. Size	μm	0.30

SMT-02H

Application

It is characterized by high coercivity and remanent magnetization. SMT-02H is cubic in shape that is designed for use in high speed copy machine.



Particle shape

Cubic type

CAS No.

1317-61-9

Chemical designation

Synthetic iron oxide Fe_3O_4

Powder Properties

Hc (Coercivity)	Oe	125
σ_s (Saturated Magnetization)	emu/g	86
σ_r (Remained Magnetization)	emu/g	12.5
AD (Apparent Density)	g/ml	0.5
OA (Oil Absorption)	ml/20g	5.2
pH	-	8.0
BET (Specific Surface)	M^2/g	8.0
Aver. Size	μm	0.24

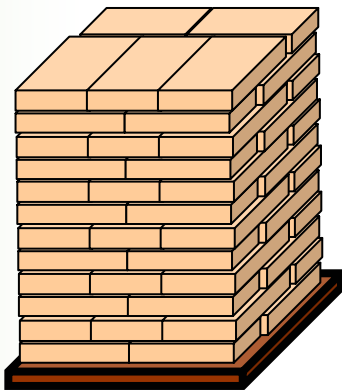
Package

SMT-2000 & SMT-02H

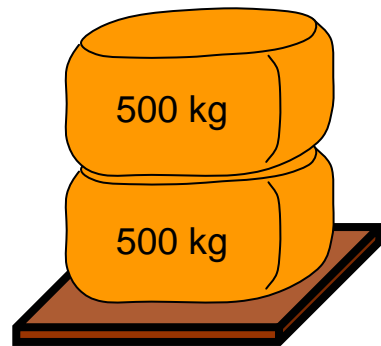
Package		Weight per bag	Bags per pallet	Pallets per 20ft container	Weight per 20ft container	CBM
Paper Bag	Standard	25 kg	60	10	15 tons	22.39m3
Jumbo Bag	Standard	500 kg	2	10	10 tons	14.28m3
	Max.	750 kg	2	10	15 tons	21.18m3

SMT-01S

Package		Weight per bag	Bags per pallet	Pallets per 20ft container	Weight per 20ft container	CBM
Paper Bag	Standard	25 kg	60	10	15 tons	15.73m3
	Max.	25 kg	70	10	17.5 tons	17.91m3
Jumbo Bag	Standard	750 kg	2	10	15 tons	16.82m3
	Max.	850 kg	2	10	17 tons	18.85m3



Paper bag pallet



Jumbo bag pallet

Magnetite package

Magnetite Plant



Hydrogen Gas Stock Yard



Utility Supply System



Raw Material Production system



Waste Water Treatment System

Magnetite plant

Global Network

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