



### We will challenge unlimited expanse of possibilities.

We, Takehara Kagaku Kogyo Co., Ltd., have been engaged for more than 60 years in manufacturing various kinds of filler such as calcium carbonate, talc, clay and barium sulfate.

Our products are used in a diverse field like paint, rubber, plastic, sealant, paper and printing ink.

We will continue to develop for high quality and fine products to meet your many different requests.





Malaysia plant

# Company Profile

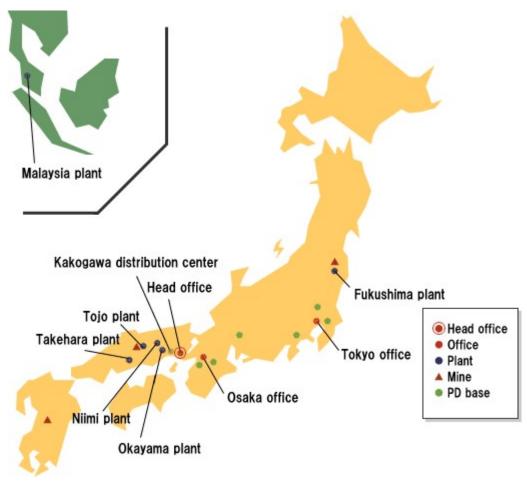
## Company Profile

Name	Takehara Kagaku Kogyo Co., Ltd. (Takehara Chemical Industrial Co., Ltd.)					
Head office	Akashi-shi, Hyogo, Japan					
Establishment	pril 1939					
Paid-up capital	5,000,000 yen					
President	Masahiro Ando					
Main products	Activated Colloidal Calcium Carbonate Ground Calcium Carbonate, Surface Coated Calcium Carbonate Talc, Barium Sulphate,Kaolin / Clay Calcium Carbonate and Talc for food, and Kaolin for pharmaceutical					
Group companies	Kokko Milling Co., Ltd. Sanyo Kagaku Sangyo Co., Ltd. Bihoku Transportation Co., Ltd. Takehara Chemical (Malaysia) Sdn. Bhd.					

## **Company History**

Apr. 1939	Takehara Seifun Co., Ltd. established to manufacture Ground Calcium Carbonate.					
Jul. 1955	Osaka office opened.					
May. 1959	Niimi plant established to manufacture Colloidal Calcium Carbonate.					
Mar. 1961	Tojo plant established to manufacture Ground Calcium Carbonate.					
Jan. 1964	The company name changed to Takehara Kagaku Kogyo Co., Ltd.					
Feb. 1964	Tokyo office opened					
Aug. 1967	Fukushima plant established to manufacture Ground Calcium Carbonate.					
Oct. 1987	Kakogawa distribution center established					
Mar. 1993	Takehara Chemical (Malaysia) Snd. Bhd. (Malaysian plant) established to manufacture Colloidal Calcium Carbonate.					
Jun. 2002	Okayama plant established to manufacture Kaolin / Clay.					

# Offices & Plants



Head office	
1-9-7 Nakasaki, Akashi-shi, Hyogo, 673-0883, Japan	TEL +81-78-911-3794
Tokyo office	
Toei Nishi-shinbashi Bldg.3F, 1-13-5 Nishi-shinbashi, Minato-ku, Tokyo, 105-0003, Japan (Map)	TEL +81-3-3501-6281 FAX +81-3-3501-6250 E-mail tokyo@takehara-chem.jp
Osaka office	
Osaka-daiichiseimei Bldg.10F, 1-8-17 Umeda, Kita-ku, Osaka, 530-0001, Japan ( <u>Map</u> )	TEL +81-6-4797-1201 FAX +81-6-4797-1277 E-mail osaka@takehara-chem.jp

#### **Products**



#### Activated Colloidal Calcium Carbonate (NEOLIGHT series)

NEOLIGHT is activated colloidal calcium carbonate (precipitated coated calcium carbonate, pcc), which is made from high-grade limestone and the surface is treated. NEOLIGHT is used as functional filler in rubber, plastics, sealant, paint, printing ink industries and so on.

#### Ultra Fine Ground Calcium Carbonate (SUN LIGHT series)

SUN LIGHT is ultra fine ground calcium carbonate powder obtained by pulverizing high-grade limestone. SUN LIGHT is mainly used as an extender pigment in rubber, plastics, paint, paper industries and so on.

### Surface Coated Ultra Fine Calcium Carbonate (WHITE SEAL series)

WHITE SEAL is obtained by coating the surface of fine ground calcium carbonate powder. WHITE SEAL enhanced dispersion in polymer matrix is mainly used in plastics and rubber industries.

#### Talc

Talc (chemical name is hydrated magnesium silicate) is white or gray-colored powder with a smooth feel. Our various kinds of talc are used in plastics, paint and many other industries.

### Barium Sulfate

Barium sulfate is the powder manufactured by pulverizing high-grade barite ore. It is very heavy powder, and very stable physically and chemically. So, our various kinds of barium sulfate are used in paint, rubber, plastics and many other industries.

#### Kaolin Clay

Kaolin and clay (chemical name is aluminum silicate) are the powder obtained by pulverizing high-grade clay in the wet or dry process. Our various kinds of kaolin or clay are used in rubber, paint and many other industries.

#### For Food & Pharmaceutical

We manufacture food and pharmaceutical grade of calcium carbonate, talc and kaolin which comply with the Japanese and U.S. Pharmacopoeia.

## Activated Colloidal Calcium Carbonate (NEOLIGHT series)

#### Activated Colloidal Calcium Carbonate

NEOLIGHT is the activated colloidal calcium carbonate (precipitated coated calcium carbonate, pcc) synthesized from limestone. We can manufacture NEOLIGHT with various particle sizes and surface treatment. We can answer to many kinds of requests by customers and supply to wide range of applications.

### **Properties**

Very fine particle (average particle size:0.04-0.2micron), and uniform particle size Uniform particle shape
Good dispersion with surface treatment
High purity

#### NEOLIGHT SS

Viscosity control in Sealant (high modulus type)

Easy dispersion in Printing Ink

Reinforcement in Rubber

#### NEOLIGHT SP

Viscosity control in various kinds of Sealant

Thixotrope in PVC Plastisol

Smooth finish and high gloss in PVC compound

#### **NEOLIGHT SP-T**

Smooth finish and high gloss in PVC compound

#### **NEOLIGHT SP-60**

Thixotrope in PVC Plastisol (high viscosity type)

#### **NEOLIGHT SP-100**

Anti-sag in Paint

#### NEOLIGHT SA-200

High gloss in Printing Ink and Paint

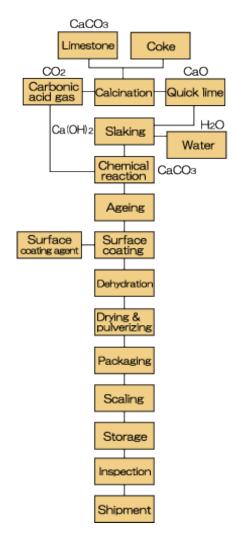
#### **NEOLIGHT SA-300**

High transparency in Printing Ink

Typical Properties of NEOLIGHT

	Coating agent	Apparent Specific gravity (g/ml)	Oil Absorption (ml/100g)	Average Particle size (micron)	Moisture (%)
NEOLIGHT SS	Fatty acid	0.33	28	0.04	0.5
NEOLIGHT SP	Fatty acid	0.30	26	0.08	0.5
NEOLIGHT SP-T	Fatty acid	0.35	23	0.15	0.5
NEOLIGHT SP-60	Fatty acid	0.30	25	0.08	0.5
NEOLIGHT SP-100	Special fatty acid	0.30	26	0.08	0.5
NEOLIGHT SA-200	Rosin acid	0.35	32	0.08	0.5
NEOLIGHT SA-300	Rosin acid	0.40	29	0.04	0.5

## Manufacturing process



# Ultra Fine Ground Calcium Carbonate(SUN LIGHT series)

## Properties

Ultra fine powder of ground calcium carbonate Wide range of particle size High purity because of selected raw material

## Application

Paper, Rubber, Paint, Plastics and many other industries as filler

Typical value

	Whiteness (%)	Oil Absorption (ml/100g)	Specific surface area (cm2/g)	330 mesh residue (%)	Average particle size (µm)	рН	Moisture (%)
SL-100	96.0	16	8000	0.1	6.0	9.5	0.15
SL-300	96.0	18	10000	0.1	5.0	9.5	0.15
SL-700	96.0	19	12000	0.0	4.5	9.5	0.15
SL-1000	95.0	20	13000	0.0	3.0	9.5	0.20
SL-1500	95.0	21	15000	0.0	2.0	9.5	0.20
SL-2200	95.0	23	22000	0.0	1.3	9.5	0.20

# Surface Coated Ultra Fine Calcium Carbonate(WHITE SEAL series)

## Properties

Easy dispersion and good wet ability in polymer matrix

## Application

Paper, Rubber, Paint, Plastics and many other industries as filler

Typical value

	Whiteness (%)	Oil absorption (ml/100g)	Apparent specific gravity (g/ml)	Average particle size (µm)	рН	Moisture (%)
WS-K	95.0	16	0.6	5.0	9.0	0.3
WS-KK	95.0	17	0.6	5.0	9.0	0.3
WS-3K	95.0	18	0.5	3.0	9.0	0.3
WS-810	95.0	17	0.5	4.3	9.0	0.3
WS-2200	95.0	20	0.4	1.3	9.0	0.3

## Talc

## Properties

Wide range of particle size and whiteness Good heat resistance and chemical stability

## Application

Paint, Plastics and many other industries as functional filler

Normal talc Typical value

	Whiteness (%)	Oil absorption (ml/100g)	Apparent specific gravity (g/ml)	330 mesh residue (%)	Average particle size( <b>u</b> m)	pН	Moisture (%)
P talc	93.0	35	0.30	0.5	9.0	9.2	0.3
PH talc	92.0	36	0.25	0.1	6.0	9.2	0.3
PS talc	90.0	32	0.35	1.0	9.0	9.2	0.3
TTK talc	87.0	27	0.38	0.5	9.0	9.2	0.3
TT talc	86.0	33	0.28	0.5	7.0	9.2	0.3
T talc	83.0	27	0.42	1.0	9.0	9.0	0.3
ST talc	80.0	27	0.42	1.0	9.0	9.0	0.3

High grade talc Typical value

	Whiteness (%)	Oil absorption (ml/100g)	Apparent specific gravity (g/ml)	330 mesh residue (%)	Average particle size(µm)	рН	Moisture (%)
High toron	86.0	40	0.20	0.05	4.0	9.2	0.3
High toronA	93.0	42	0.17	0.01	3.0	9.2	0.3
Microlight	88.0	42	0.18	0.01	2.5	9.2	0.3
Hi-lac	92.0	36	0.25	0.1	7.0	9.2	0.3
High micron HE5C	95.5	52	0.10	all pass	1.6	9.2	0.3

# Barium Sulfate

## Properties

Fine particle of ground Barite Very heavy powder Very stable chemically and physically

## Application

Paint, Rubber, Plastics and many other industries as filler

Typical value

	Whiteness (%)	Oil absorption (ml/100g)	Apparent specific gravity (g/ml)	330 mesh residue (%)	Average particle size (µm)	рН	Moisture (%)
W-1	93.0	10	0.50	0.0	1.5	9.0	0.2
W-6	91.0	7	0.85	0.0	5.0	9.0	0.2
W-10	90.0	6	1.0	0.2	10.0	9.0	0.2
C-300	65.0	4	1.2	4.0	12.0	9.0	0.2

# Kaolin / Clay

## **■**Properties

Dry or wet ground powder of aluminum silicate

## Application

Paint, Rubber and many other industries as filler

	Whiteness (%)	Moisture (%)	330 mesh residue (%)	рН	Apparent specific gravity (g/ml)
NN kaolin clay	>84.0	<1.5	<0.01	3.8~5.0	0.23~0.32
SPMA clay	>86.0	<1.5	<0.01	4.0~6.0	0.23~0.33
Kaolin clay 5M	>84.0	<1.5	<0.01	5.0~7.0	0.18~0.24
Hardsil	>83.0	<1.5	<0.01	5.0~7.0	0.23~0.32
ST kaolin clay	>80.0	<1.5	<0.01	3.8~5.0	0.18~0.32
Katarupo	>70.0	< 0.5	<1.0	6.0~8.0	0.50~0.60
No.5 clay	>80.0	<0.3	<0.5	5.5~7.5	0.35~0.45
Union clay RC-1	>72.0	< 0.5	< 0.5	4.5~5.5	0.25~0.35
Glomax LL	>90.0	< 0.5	< 0.02	4.2~5.2	0.20~0.30
Satintone W	>90.0	< 0.5	< 0.02	5.0~7.0	0.25~0.50