방청도료용 원료(Zinc pigment)생산전문기업

주요생산품

Zinc Dust	ZD-13	**Zinc Flake**	ZF-130
	ZD-35		ZF-180
	ZD-46		
	ZD-57		
	ZD-69		

주식회사 **지티씨**

회사 소개

주식회사지티씨는 아연분말을 통한 부식 방지 기술 개발에 주력하고 있는 금속 안료 제조업체로서 끊임없이 고성능 아연 안료를 개발하고 있으며 철저한 품질관리 시스템, 전문적인 서비스, 표준화된 공정관리를 바탕으로 수요처에 항상 고품질의 제품을 공급하고자 최선을 다하고 있습니다.

Company Introduction

GTC Co.,LTD is a metal pigment chemical industry which focuses on corrosion technology with zinc powder. Our GTC has been dedicating to research on excellent zinc pigment, and now is continually supplying high-quality products customers with standardized operation management, efficient professional services, perfect material control system.


GTC
" We bring goodthings to pigment industry "

주요거래선 | Major Clients

PPG SSC Co., Ltd.

carboline

JOTUN

KCC paint

AkzoNobel
Tomorrow's Answers Today

제비표페인트
건설화학공업주식회사

벽산페인트

CHOKWANG
조광페인트

Bn CHEMICAL
비엔철강㈜케미칼

NOROO
노루비케미칼

DSC 동서화학공업주식회사
Dong-Suh Chemical Ind.Co.,Ltd.

AK 에이케이켐텍주식회사

제품용도 | Product Use

조선/중공업/교량 등 철강 구조물 관련 산업→부식방지용(방청,방식)도료의 원료로 사용.
방청도료 조성의 50% 이상은 아연분말(Zinc dust)로 이루어져 있음.
국내 유수의 주요 도료 회사에 방청 안료용 Zinc dust 제품 공급 중.

Shipbuilding, Hevy industry, Automobile industry, Steel industry, Construction, Steel-related industries: Used as an ingredient in anti-corrosion Coatings.
More than 50% of anti-rust paint composition consists of zinc dust.
We supply zinc to internal and external major anti-corrosion paint manufacturing companies.

주생산품 | Product

방청도료용 원료
Zinc Dust

고품격, 고순도, 고기능성 제품으로
철 부식인자의 차단효과가
매우 우수합니다.

High-quality/High purity
/High function Anti-Corrosion
Performance is excellent.

용도 | Use	철구조물 등의 방청도료용으로 사용되는 평균입도 1~9㎛의 아연분말. Zinc powder with an average particle size of 1 ~ 9㎛ used for rust preventive paints such as steel structures.
포장단위 | Packing Unit	25kg PP Bag/20~40Pail Can/500kg PP bag

납(Pb)은 100ppm 미만으로 조정 가능. Lead (Pb) can be adjusted to less than 100 ppm.

ZD-13

Average Particle Size 1~3㎛

Quality Requirement

NO	TEST ITEMS	QUALLITY RANGE	UNIT	TEST METHODS
1	APPLEARANCE	Gray Power		VISUAL
2	MOISTURE	Max. 0.05	%	ASTM D521
3	OIL ABSORPTION	5 - 7	%	ASTM D281
4	PARTICLE SIZE	1.0 - 3.0	㎛	PSA
5	SIEVE RESIDUE		%	ASTM D521
	100 MESH	Nil		
	200 MESH	Nil		
	325 MESH	Nil		
6	METAL ZINC	Min. 94	%	ASTM D521
7	TOTAL ZINC	Min. 99	%	ASTM D521
8	Pb	Max. 0.10	%	ASTM D521
9	Fe	Max. 0.05	%	ASTM D521
10	Cd	Max. 0.05	%	ASTM D521
11	Cl	Max. 0.01	%	ASTM D521
12	ZnO	Max. 6.00	%	ASTM D521
13	OIL MATERIALS	Max. 0.05	%	ASTM D521
14	SP/GR	7.0 - 7.2		ASTM D153

ZD-35

Average Particle Size 3~5㎛

Quality Requirement

NO	TEST ITEMS	QUALLITY RANGE	UNIT	TEST METHODS
1	APPLEARANCE	Gray Power		VISUAL
2	MOISTURE	Max. 0.05	%	ASTM D521
3	OIL ABSORPTION	5 - 7	%	ASTM D281
4	PARTICLE SIZE	3.0 - 5.0	㎛	PSA
5	SIEVE RESIDUE		%	ASTM D521
	100 MESH	Nil		
	200 MESH	Nil		
	325 MESH	Nil		
6	METAL ZINC	Min. 96	%	ASTM D521
7	TOTAL ZINC	Min. 99	%	ASTM D521
8	Pb	Max. 0.10	%	ASTM D521
9	Fe	Max. 0.05	%	ASTM D521
10	Cd	Max. 0.05	%	ASTM D521
11	Cl	Max. 0.01	%	ASTM D521
12	ZnO	Max. 4.00	%	ASTM D521
13	OIL MATERIALS	Max. 0.05	%	ASTM D521
14	SP/GR	7.0 - 7.2		ASTM D153

ZD-46

Average Particle Size 4~6㎛

Quality Requirement

NO	TEST ITEMS	QUALLITY RANGE	UNIT	TEST METHODS
1	APPLEARANCE	Gray Power		VISUAL
2	MOISTURE	Max. 0.05	%	ASTM D521
3	OIL ABSORPTION	5 - 7	%	ASTM D281
4	PARTICLE SIZE	4.0 - 6.0	㎛	PSA
5	SIEVE RESIDUE		%	ASTM D521
	100 MESH	Nil		
	200 MESH	Nil		
	325 MESH	Max. 0.03		
6	METAL ZINC	Min. 96	%	ASTM D521
7	TOTAL ZINC	Min. 99	%	ASTM D521
8	Pb	Max. 0.10	%	ASTM D521
9	Fe	Max. 0.05	%	ASTM D521
10	Cd	Max. 0.05	%	ASTM D521
11	Cl	Max. 0.01	%	ASTM D521
12	ZnO	Max. 4.00	%	ASTM D521
13	OIL MATERIALS	Max. 0.05	%	ASTM D521
14	SP/GR	7.0 - 7.2		ASTM D153

ZD-57

Average Particle Size 5~7㎛

Quality Requirement

NO	TEST ITEMS	QUALLITY RANGE	UNIT	TEST METHODS
1	APPLEARANCE	Gray Power		VISUAL
2	MOISTURE	Max. 0.05	%	ASTM D521
3	OIL ABSORPTION	5 - 7	%	ASTM D281
4	PARTICLE SIZE	5.0 - 7.0	㎛	PSA
5	SIEVE RESIDUE		%	ASTM D521
	100 MESH	Nil		
	200 MESH	Nil		
	325 MESH	Nil		
6	METAL ZINC	Min. 94	%	ASTM D521
7	TOTAL ZINC	Min. 99	%	ASTM D521
8	Pb	Max. 0.10	%	ASTM D521
9	Fe	Max. 0.05	%	ASTM D521
10	Cd	Max. 0.05	%	ASTM D521
11	Cl	Max. 0.01	%	ASTM D521
12	ZnO	Max. 6.00	%	ASTM D521
13	OIL MATERIALS	Max. 0.05	%	ASTM D521
14	SP/GR	7.0 - 7.2		ASTM D153

ZD-69

Average Particle Size 6~9㎛

Quality Requirement

NO	TEST ITEMS	QUALLITY RANGE	UNIT	TEST METHODS
1	APPLEARANCE	Gray Power		VISUAL
2	MOISTURE	Max. 0.05	%	ASTM D521
3	OIL ABSORPTION	5 - 7	%	ASTM D281
4	PARTICLE SIZE	6.0 - 9.0	㎛	PSA
5	SIEVE RESIDUE		%	ASTM D521
	100 MESH	Nil		
	200 MESH	Nil		
	325 MESH	Max. 0.03		
6	METAL ZINC	Min. 96	%	ASTM D521
7	TOTAL ZINC	Min. 99	%	ASTM D521
8	Pb	Max. 0.10	%	ASTM D521
9	Fe	Max. 0.05	%	ASTM D521
10	Cd	Max. 0.05	%	ASTM D521
11	Cl	Max. 0.01	%	ASTM D521
12	ZnO	Max. 3.00	%	ASTM D521
13	OIL MATERIALS	Max. 0.05	%	ASTM D521
14	SP/GR	7.0 - 7.2		ASTM D153

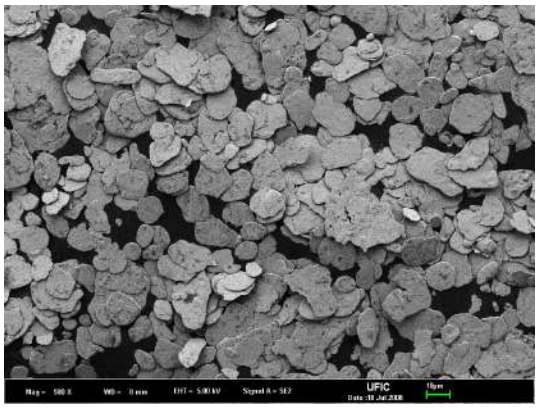
아연플레이크 | Zinc Flake

아연플레이크의 부식보호 특징

아연은 음극보호(cathodic protection) 기능을 통한 뛰어난 방식특성을 가지고 있습니다. 그 중에서도 아연 플레이크는 장벽효과(Barrier effect)를 증대시켜 음극보호기능만으로 부식방지를 실시할 때 보다 더 장기적인 방식이 가능하게 됩니다.
음극보호에 의한 부식방지 방법은 아연 입자와 피도물간의 전도적 접촉이 요구되는데 아연플레이크는 상대적으로 피도물과의 접촉 면적이 더 넓기 때문에 보다 향상된 전기 전도성을 나타냄으로써 더욱 효과적인 부식방지 성능을 나타냅니다.

Corrosion Protection Propertion of Zinc Flakc

Because of their lamellar shape, zinc flakes have a fundamentally higher specific surface area than spherical zinc dust.
The correspondingly higher binder content is decided by formulations with lower pigment volume concentration. As a result this provides advantages for both handling of pigments and paint properties.



Zinc flake

TECHNICAL DATA	
TEST	TYPICAL VALUE
Particle	Lamella, flake
Bulk density (kg/l)	approx.1.1.
Non volatile contact(%) ASTM D521	100

• Packing Unit : 25kg PP Bag / 20~40 Pail Can / 500kg PP Bag

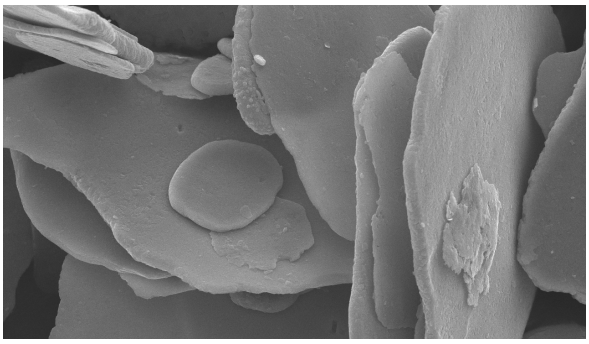
ELEMENTS	SPECIFICATION	UNIT	NORMS	ZF-130	ZF-180
Appearance	Silver grey	-	VISUAL	Silver grey	Silver grey
MOISTURE	Max. 0.05	%	ASTM D 521	0-0.01	0-0.01
PARTICLE SIZE	aver. 15-20	μm	PSA	12~14	17~20
SIEVE RESIDUE			ASTM D 521		
100 MESH	Nil	%		-	-
200 MESH	Nil	%		-	-
300 MESH	Max. 3.0	%		1.0	3.0

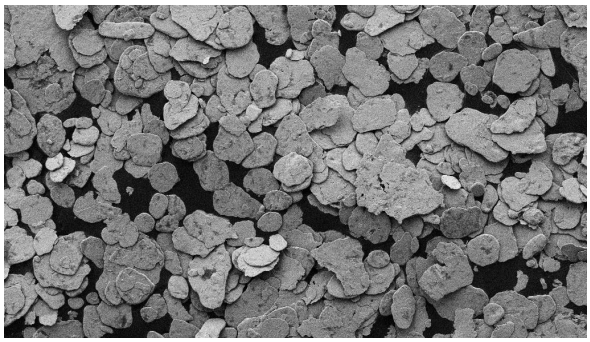
아연 플레이크 코팅의 이점

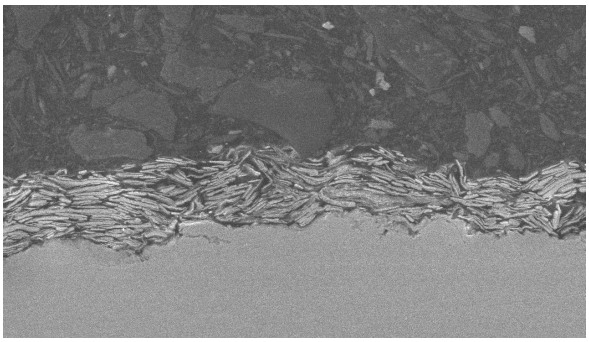
도료 내 낮은 아연함량(높은 수지함량)
높은 수지함량으로 인한 유연성 증가와 굴곡부위의 부식방지효과 증대
수포발생 감소
부드러운 표면 형성
중량감소
피도물과의 부착력 증대
투과도 및 기공 감소
금속성 외관
침전안료의 재교반이 용이

Less zinc content in paint (higher binder content)
Improved edge/corner protection and flexibility due to higher binder content
No blistering
Smooth surface
Lower weight
Greater flexibility
Better adhesive property with substrate
Good overcoatability
Low porosity and permeability
Metallic appearance Significantly less tendency to settle
Easily re-stirrable sediment


플레이크 장비


플레이크 확대


Flake(편상) 아연 방식 안료


플레이크 단면

시험성적서 | Test Report

TEST RESULT

TITLE : ZINC DUST

GRADE : ZD-13(1.0~3.0 ㎛)CTYPE-D

	Test Items	Specifications	UNIT	Test Methods	Test Results
1	APPEARANCE	Grey Powder		VISUAL	
2	MOISTURE	Max. 0.05	%	ASTM D 521	0.001
3	PARTICLE SIZE	1.0 ~ 3.0	㎛	PSA	2.878
4	SIEVE RESIDUE		%	ASTM D 521	
	100 MESH	NIL			-
	200 MESH	NIL			-
	325 MESH	Max. 0.03			-
5	METALLIC ZINC	Min. 96	%	ASTM D 521	96.51
6	TOTAL ZINC	Min. 99	%	"	99.64
7	Pb	Max. 0.1	%	"	0.0036
8	Fe	Max. 0.02	%	"	0.0009
9	Cd	Max. 0.01	%	"	0.0002
10	Cl	Max. 0.01	%	"	0.0001
11	ZnO	Max. 4.0	%	"	3.13
12	SP/GR	7.0 ~ 7.2		ASTM D 153	7.09

*There are no items that are not filled up or analyzed.

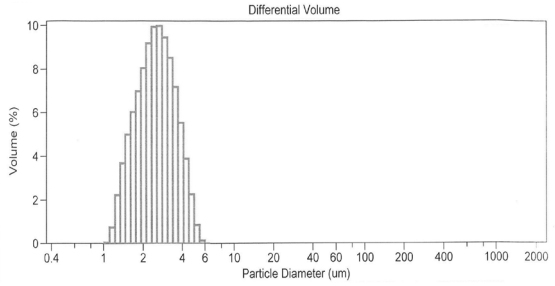
The accuracy of analysis is different as how to use and the sensibility of component.

This is to certify that these mentioned items are correct.

Feb.04.2020

GTC CO.,LTD.

QUALITY ASSURANCE DEPARTMENT



Volume Statistics (Arithmetic)

Calculations from 0.375 um to 2000 um

Volume:	100%		
Mean:	3.948 um	S.D.:	2.338 um
Median:	2.878 um	Variance:	5.468 um^2
Mean/Median ratio:	1.047	C.V.:	33.7%
Mode:	4.083 um	Skewness:	0.602 Right skewed
		Kurtosis:	-0.145 Platykurtic

<10%	<20%	<30%	<50%	<70%	<80%	<90%	<100%
1.047 um	1.797 um	2.431 um	2.878 um	3.032 um	4.940 um	5.438 um	6.638 um

TEST RESULT

TITLE : ZINC DUST

GRADE : ZD-3(3.0~5.0 ㎛)CTYPE-D

	Test Items	Specifications	UNIT	Test Methods	Test Results
1	APPEARANCE	Grey Powder		VISUAL	
2	MOISTURE	Max. 0.05	%	ASTM D 521	0.001
3	PARTICLE SIZE	3.0 ~ 5.0	㎛	PSA	4.177
4	SIEVE RESIDUE		%	ASTM D 521	
	100 MESH	NIL			-
	200 MESH	NIL			-
	325 MESH	Max. 0.03			-
5	METALLIC ZINC	Min. 96	%	ASTM D 521	96.53
6	TOTAL ZINC	Min. 99	%	"	99.61
7	Pb	Max. 0.1	%	"	0.0038
8	Fe	Max. 0.02	%	"	0.0008
9	Cd	Max. 0.01	%	"	0.0002
10	Cl	Max. 0.01	%	"	0.0001
11	ZnO	Max. 4.0	%	"	3.08
12	SP/GR	7.0 ~ 7.2		ASTM D 153	7.07

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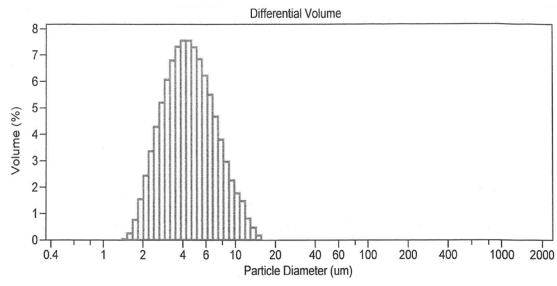

Volume Statistics (Arithmetic)

Calculations from 0.375 um to 2000 um

Volume:	100%		
Mean:	5.195 um	S.D.:	2.778 um
Median:	4.177 um	Variance:	7.717 um^2
Mean/Median ratio:	1.160	C.V.:	53.5%
Mode:	4.047 um	Skewness:	1.624 Right skewed
		Kurtosis:	3.148 Leptokurtic

<10%	<20%	<30%	<50%	<70%	<80%	<90%	<100%
2.510 um	3.018 um	3.482 um	4.177 um	5.840 um	6.885 um	8.788 um	22.73 um

TEST RESULT

TITLE : ZINC DUST

GRADE : ZD-4(4.0~6.0 ㎛)CTYPE-D

	Test Items	Specifications	UNIT	Test Methods	Test Results
1	APPEARANCE	Grey Powder		VISUAL	
2	MOISTURE	Max. 0.05	%	ASTM D 521	0.001
3	PARTICLE SIZE	4.0 ~ 6.0	㎛	PSA	5.336
4	SIEVE RESIDUE		%	ASTM D 521	
	100 MESH	NIL			-
	200 MESH	NIL			-
	325 MESH	Max. 0.03			-
5	METALLIC ZINC	Min. 96	%	ASTM D 521	96.56
6	TOTAL ZINC	Min. 99	%	"	99.62
7	Pb	Max. 0.1	%	"	0.0034
8	Fe	Max. 0.02	%	"	0.0010
9	Cd	Max. 0.01	%	"	0.0002
10	Cl	Max. 0.01	%	"	0.0001
11	ZnO	Max. 4.0	%	"	3.00
12	SP/GR	7.0 ~ 7.2		ASTM D 153	7.05

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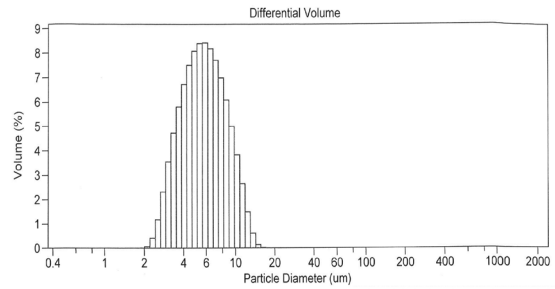

Volume Statistics (Arithmetic)

Calculations from 0.375 um to 2000 um

Volume:	100%		
Mean:	6.131 um	S.D.:	2.410 um
Median:	5.336 um	Variance:	5.809 um^2
Mean/Median ratio:	1.078	C.V.:	39.3%
Mode:	5.878 um	Skewness:	0.794 Right skewed
		Kurtosis:	0.207 Leptokurtic

<10%	<20%	<30%	<50%	<70%	<80%	<90%	<100%
3.368 um	3.970 um	4.526 um	5.336 um	7.154 um	8.135 um	9.605 um	18.86 um

TEST RESULT

TITLE : ZINC DUST

GRADE : ZD-57(5.0~7.0 μ)CTYPE-D

	Test Items	Specifications	UNIT	Test Methods	Test Results
1	APPEARANCE	Grey Power		VISUAL	
2	MOISTURE	Max. 0.05	%	ASTM D 521	0.001
3	PARTICLE SIZE	5.0 ~ 7.0	μ	PSA	6.392
4	SIEVE RESIDUE		%	ASTM D 521	
	100 MESH	NIL			-
	200 MESH	NIL			-
	325 MESH	Max. 0.03			-
5	METALLIC ZINC	Min. 96	%	ASTM D 521	96.51
6	TOTAL ZINC	Min. 99	%	"	99.64
7	Pb	Max. 0.1	%	"	0.0036
8	Fe	Max. 0.02	%	"	0.0011
9	Cd	Max. 0.01	%	"	0.0002
10	Cl	Max. 0.01	%	"	0.0001
11	ZnO	Max. 4.0	%	"	3.13
12	SP/GR	7.0 ~ 7.2		ASTM D 153	7.09

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Feb.04.2020

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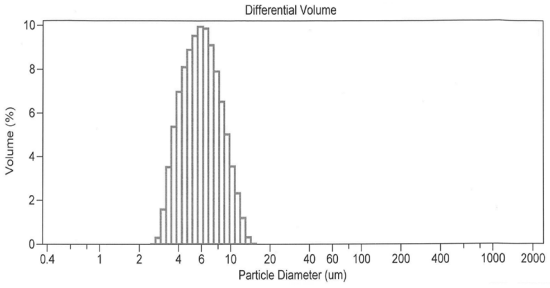

Volume Statistics (Arithmetic)

Calculations from 0.375 um to 2000 um

Volume:	100%		
Mean:	6.286 um	S.D.:	2.142 um
Median:	6.392 um	Variance:	4.588 um^2
Mean/Median ratio:	1.061	C.V.:	34.1%
Mode:	5.878 um	Skewness:	0.782 Right skewed
		Kurtosis:	0.201 Leptokurtic

<10%	<20%	<30%	<50%	<70%	<80%	<90%	<100%
3.813 um	4.356 um	4.868 um	6.392 um	7.192 um	8.049 um	9.364 um	15.65 um

TEST RESULT

TITLE : ZINC DUST

GRADE : ZD-69(6.0~9.0 μ)CTYPE-D

	Test Items	Specifications	UNIT	Test Methods	Test Results
1	APPEARANCE	Grey Power		VISUAL	
2	MOISTURE	Max. 0.05	%	ASTM D 521	0.001
3	PARTICLE SIZE	6.0 ~ 9.0	μ	PSA	7.795
4	SIEVE RESIDUE		%	ASTM D 521	
	100 MESH	NIL			-
	200 MESH	NIL			-
	325 MESH	Max. 0.03			-
5	METALLIC ZINC	Min. 96	%	ASTM D 521	96.53
6	TOTAL ZINC	Min. 99	%	"	99.60
7	Pb	Max. 0.1	%	"	0.0036
8	Fe	Max. 0.02	%	"	0.0010
9	Cd	Max. 0.01	%	"	0.0001
10	Cl	Max. 0.01	%	"	0.0001
11	ZnO	Max. 4.0	%	"	3.07
12	SP/GR	7.0 ~ 7.2		ASTM D 153	7.06

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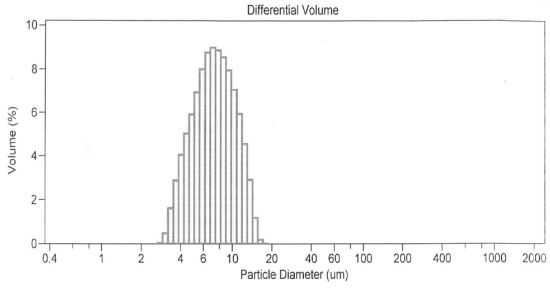
Feb.04.2020

GTC CO.,LTD.

QUALITY ASSURANCE DEPARTMENT



Volume Statistics (Arithmetic)

Calculations from 0.375 um to 2000 um

Volume:	100%		
Mean:	7.634 um	S.D.:	2.750 um
Median:	7.796 um	Variance:	7.565 um^2
Mean/Median ratio:	1.057	C.V.:	36.0%
Mode:	7.083 um	Skewness:	0.583 Right skewed
		Kurtosis:	-0.304 Platykurtic

<10%	<20%	<30%	<50%	<70%	<80%	<90%	<100%
4.317 um	5.107 um	5.817 um	7.796 um	8.928 um	10.07 um	11.63 um	18.86 um

TEST RESULT

TITLE : ZINC FLAKE

GRADE : ZF-180

	Test Items	Specifications	UNIT	Test Methods	Test Results
1	APPEARANCE	Grey Power		VISUAL	
2	MOISTURE	Max. 0.05	%	ASTM D 521	0.001
3	PARTICLE SIZE	15.0 ~ 25.0	μ	PSA	18.23
4	SIEVE RESIDUE		%	ASTM D 521	
	100 MESH	NIL			-
	200 MESH	NIL			-
	325 MESH	Max. 0.03			-
5	METALLIC ZINC	Min. 96	%	ASTM D 521	96.38
6	TOTAL ZINC	Min. 99	%	"	99.58
7	Pb	Max. 0.1	%	"	0.0038
8	Fe	Max. 0.02	%	"	0.0010
9	Cd	Max. 0.01	%	"	0.0001
10	Cl	Max. 0.01	%	"	0.0001
11	ZnO	Max. 4.0	%	"	3.20
12	SP/GR	7.0 ~ 7.2		ASTM D 153	7.03

■There are no items that are not filled up or analyzed.

The accuracy of analysis is different as how to use and the sensibility of component.

This is to certify that these mentioned items are correct.

Feb.04.2020

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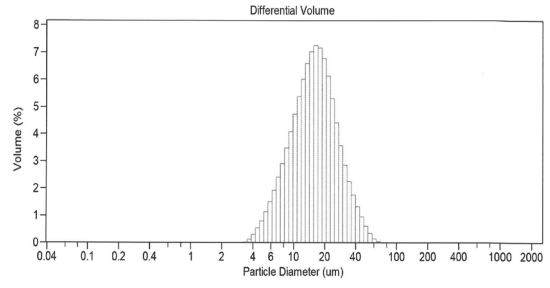

Volume Statistics (Arithmetic)

Calculations from 0.040 um to 2000 um

Volume:	100%		
Mean:	17.78 um	S.D.:	9.444 um
Median:	18.23 um	Variance:	89.20 um^2
Mean/Median ratio:	1.121	C.V.:	53.1%
Mode:	16.40 um	Skewness:	1.286 Right skewed
		Kurtosis:	2.106 Leptokurtic

<10%	<20%	<30%	<50%	<70%	<80%	<90%	<100%
7.715 um	9.957 um	11.94 um	15.85 um	20.64 um	24.25 um	30.40 um	83.89 um

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주식회사 **지티씨**