

# METALLIC PIGMENT

■ Zhangqiu Metallic Pigment Co., Ltd.

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# COMPANY OVERVIEW

Zhangqiu Metallic Pigment Co., Ltd. was founded by Mr. Liu Enwei in 1987. "Silver Rocket" brand aluminium pigment was exported to more than 40 countries. We own 6 factories in China including 4 for aluminum pigment and 1 for aluminum powder. In 2019, we acquired Suzhou Diamond Metal Powder Co., Ltd. equipment and built 1 bronze powder factory. Now, "Silver Rocket" is the sole manufacturer in China who can produce silver and gold metallic pigment. We are moving to the top of the industry.

Below are our advantages.

- ※Silver Rocket is the manufacturer with more than 30 years production experience.
- ※We have 6 manufacturing plants covering total area of 170,000 square meters.
- ※Aluminum paste and powder production capacity is 20000 tons/Y, bronze powder is 1500 tons/Y.
- ※Many multi-national companies have cooperation with us. Quality is guaranteed.
- ※Own aluminum powder production facilities, produce raw material by ourselves.
- ※Over 50 professional R&D technicians to research new product and provide technical service.
- ※REACH full registration, ISO9001:2015, ISO14001:2015 and OHSAS18001:2007 certified.







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# AUTOMOTIVE SPECIALITY ALUMINIUM PASTE

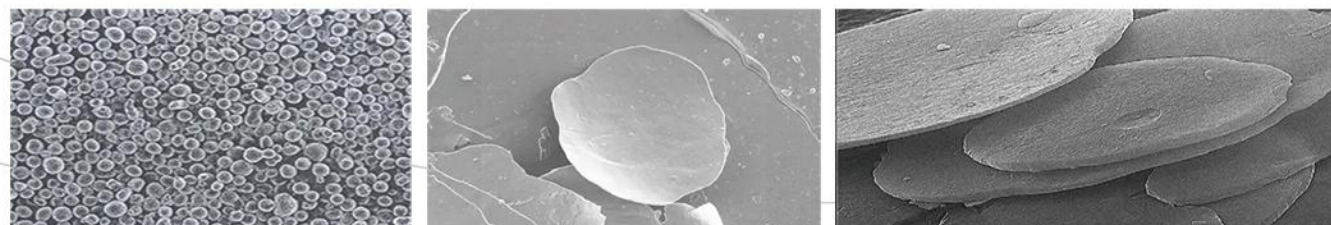
## Characteristics

AUTOMOTIVE SPECIALITY is manufactured using our best in-house powder. Only spherical powder is used to manufacture grades that have a narrow particle size distribution curve. Advanced equipments are adopted in the company to produce aluminium particle in a silver-dollar like structure with smooth surface and edges and consistent diameter to thickness ratio. Therefore, this series imparts high reflectivity and good orientation capability to give the paint film a bright appearance and smooth surface look.

## Performance Parameter

Grades	Non Volatile Content (±2%)	Average Particle Size(um)(D50)	Screen Analysis (325mesh<%)	Applications
ZQ-405	70	5	0.5	High grade OEM, Refinish, Coil and Plastic
ZQ-406	70	6	0.5	
ZQ-407	70	7	0.5	
ZQ-408	70	9	1.0	
ZQ-409	72	9	1.0	
ZQ-410	72	10	1.0	
ZQ-415	72	20	1.0	
ZTP-605A	72	5	0.5	

Solvent  
HA: High Boiling Point Aromatic Hydrocarbon Solvent



# RESIN COATED ALUMINUM PASTE

## Characteristics

Resin coated aluminum paste, the surface of the aluminum flakes are coated by a resin film to form a dense protective layer, which has good compatibility with the coating resin and solvents. The finished coating film is flat, smooth, and excellent in adhesion. It is resistant to acid and alkali corrosion and strong electrical insulation. It's widely used to coil coatings, fluorocarbon exterior coatings, other coatings with corrosion resistance and insulation requirements ect.

## Performance Parameter

Grade	Non Volatile Content (+-2%)	Solvent	Screen Analysis (45um<%)	Average Particle Size (6um)	Surface Coated	Particle Shape	Leafing Or Non-leafing
ZRC-06S	55%	mineral oil	99.5	6	acrylic resin	Silver dollar	Non-leafing
ZRC-13S	55%		99.5	13		Silver dollar	Non-leafing
ZRC-20S	55%		99.5	20		Silver dollar	Non-leafing

# WATER-BORNE ALUMINIUM PASTE

## Characteristics

WATER BORNE uses aluminium powder of a narrow particle size distribution which has undergone inorganic treatment to ensure a minimum production of gases. We can produce passivated, single coated and double coated types. It has good storage stability when formulated in the resin of choice.

## Performance Parameter

Grades	Non Volatile Content (±2%)	Average Particle Size(um)(D50)	Screen Analysis (325mesh<%)	Coated Layer (Single/Double)	Applications				
					OEM	Refinish	Coil	Plastic	Decorative
ZQ-3081	65	8	1.0	Double	0	0	0	0	0
ZQ-3132	65	13	1.0	Double	0	0	0	0	0
ZQ-3183	65	18	1.0	Double	0	0	0	0	0
ZQ-3314	65	31	1.5	Double	0	0	0	0	0
ZQ-3425S	65	42	1.5	Single	0	0	0	0	0
ZQ-3566S	65	56	1.5	Single	0	0	0	0	0

Solvent: PM





# SPARKLING ALUMINIUM PASTE

## Characteristics

SPARKLING series is for OEM and Refinish coatings and coil coatings. They are manufactured using spherical aluminium powders and our newly installed equipments. This series imparts a bright metallic effect coupled with better hiding power.

## Performance Parameter

Grades	Non Volatile Content (±2%)	Average Particle Size (um)(D50)	Screen Analysis (325mesh<%)	Applications							
				3C	Wheel	OEM	Refinish	Coil	Industry	Plastic	Non-stick
ZQ-11217	72	12	1.0			0	0	0	0		
ZQ-11523	72	15	1.0			0	0	0	0	0	
ZQ-11718	72	16	1.0			0	0	0	0	0	
ZQ-11819	72	18	1.0	0		0	0	0	0		
ZQ-12020	72	20	1.0	0		0	0	0	0		
ZQ-12511	72	25	1.0		0		0	0	0	0	0
ZQ-1280	72	28	1.0		0		0	0	0	0	0
ZQ-1281	72	28	1.0	0		0	0	0	0		
ZQ-12826	72	28	1.0		0	0	0	0	0	0	0
ZQ-13514	72	35	1.0 (200 mesh)		0		0	0	0	0	0
ZQ-13625	72	36	1.0 (200mesh)		0	0	0	0	0	0	0
ZQ-14215	72	42	1.5 (200 mesh)		0				0	0	0
ZQ-14225	72	42	2.0 (200 mesh)		0	0	0	0	0	0	0
ZQ-14812	72	48	1.5 (200mesh)		0		0	0	0	0	0
ZQ-15316	72	53	1.5 (200 mesh)		0				0	0	0
ZQ-15527	72	55	1.0		0		0				0
ZQ-16524	72	65	1.0 (100mesh)		0				0		0
ZQ-15513	72	65	1.5 (100mesh)						0	0	0

Solvent  
HA: High Boiling Point Aromatic Hydrocarbon Solvent



# BRIGHT EFFECT ALUMINIUM PASTE

## Characteristics

BRIGHT EFFECT is manufactured using fine grinding processes to ensure that the surface of the particles is smooth with minimum rough edges. Specially selected spherical powders are used in the making of this series. The particles' diameter to thickness ratio is maintained at a constant level to ensure a brilliant and high reflective appearance. Advanced equipment and fine grinding processes are adopted in the company to produce aluminium particle in a silver-dollar like structure with smooth surface and edges, adequate diameter to thickness ratio, and even particle size distribution. Therefore, this series has high reflectivity and superior capability of positioning arrangement to give the paint film a bright appearance and smooth surface with a basic electroplating effect.

## Performance Parameter

Grades	Non Volatile Content (±2%)	Average Particle Size (um)(D50)	Screen Analysis (325mesh<%)	Applications				
				3C	OEM	Refinish	Coil	Industry
ZQ-2070	70	7	0.5	0	0	0	0	0
ZQ-2085	70	8	0.5	0	0	0	0	0
ZQ-2096	70	9	1.0	0	0	0	0	0
ZQ-2097	70	9	1.0	0	0	0	0	0
ZQ-2102	70	10	1.0	0	0	0	0	0
ZQ-2103	70	10	1.0	0	0	0	0	0
ZQ-2121	70	12	1.0	0	0	0	0	0
ZQ-21713	65	17	1.0	0	0	0	0	0

Solvent  
HA: High Boiling Point Aromatic Hydrocarbon Solvent



# CORN-FLAKE ALUMINIUM PASTE

## Characteristics

CORN-FLAKE SERIES is fine and white with a strong hiding power coupled with high brightness. This series products are cost-effective.

## Performance Parameter

Grades	Non Volatile Content (±2%)	Average Particle Size (um)(D50)	Screen Analysis (325mesh<%)	Applications					
				3C	OEM	Refinish	Coil	Industry	Plastic
ZQ-40610	68	6	0.5	0	0	0	0	0	0
ZQ-40615	65	6	0.5	0	0	0	0	0	0
ZQ-4085	65	8	0.5	0	0	0	0	0	0
ZQ-4089	65	8	1.0	0	0	0	0	0	0
ZQ-40813	65	8	1.0	0	0	0	0	0	0
ZQ-4101	65	10	1.0		0	0	0	0	0
ZQ-4106	65	10	1.0	0	0	0	0	0	0
ZQ-4120	65	12	1.0		0	0	0	0	0
ZQ-4122	65	12	1.0		0	0	0	0	0
ZQ-4123	65	12	1.0		0	0	0	0	0
ZQ-4154	65	15	1.0		0	0	0	0	0
ZQ-4177	65	17	1.0	0	0	0	0	0	0
ZQ-4208	65	20	1.0	0	0	0	0	0	0

Solvent  
HA: High Boiling Point Aromatic Hydrocarbon Solvent



# PREMIUM LEAFING ALUMINIUM PASTE

## Characteristics

PREMIUM LEAFING is manufactured with spherical aluminium powders using special milling technology. When formulated with the appropriate resin systems, it has an excellent leafing stability with bright appearance and sparkling effect.

## Performance Parameter

Grades	Non Volatile Content (±2%)	Average Particle Size(um) (D50)	Screen Analysis (325mesh<%)	Applications				
				Decorati	Ink	Bicycle	Aerosol	Headlamp reflector
ZQ-7044	70	4	1.0	0	0	0	0	0
ZQ-7073	70	7	1.0	0	0	0	0	0
ZQ-7092	70	9	1.0	0	0	0	0	0
ZQ-7106	70	10	1.0	0	0	0		0
ZQ-7131	72	13	1.0	0	0	0		0

Solvent: HA: High Boiling Point Aromatic Hydrocarbon Solvent





## STANDARD LEAFING ALUMINIUM PASTE

### Characteristics

STANDRAD LEAFING with high leafing value and water coverage. It is also capable of withstanding adverse weather conditions. The formulation with silicon types of resin will confer high heat resistance to the coatings.

### Performance Parameter

Grades	Non Volatile Content (±2%)	Leafing Value (Min %)	Water coverage (Min cm <sup>2</sup> /g)	Screen Analysis (325mesh<%)	Applications					
					Marine	Protective	Roof	Ink	Aerosol	Dip
ZQ-6120	65	80	17000	1.0	0	0	0			
ZQ-6122	65	85	20000	1.0	0	0	0			
ZQ-6123	65	85	20000	1.0	0	0	0			
ZQ-6124	65	80	18000	1.0	0	0	0			
ZQ-6082	64	80	40000	0.1	0	0	0	0	0	
ZQ-6083	65	80	28000	0.1		0	0	0	0	
ZQ-6084	65	80	32000	0.1		0	0	0	0	
ZQ-6138	65	80	32000	0.1				0	0	0

Solvent

HA: High Boiling Point Aromatic Hydrocarbon Solvent



## STANDARD NON-LEAFING ALUMINIUM PASTE

### Characteristics

STANDARD NON-LEAFING is produced specially for protective coatings. The technology adopted allows our grades to impart good brightness and whiteness while maintaining a well balanced cost structure.

### Performance Parameter

Grades	Non Volatile Content (±2%)	Average Particle Size(um)(D50)	Screen Analysis (325mesh<%)	Applications
ZQ-5150	65	15	1.0	General Industrial, Hammer tone effect
ZQ-5151	63	15	1.0	General Industrial, Hammer tone effect
ZQ-5152	63	16	1.0	General Industrial, toy, Hammer tone effect
ZQ-5166	65	16	1.0	General Industrial, Hammer tone effect

Solvent

HA: High Boiling Point Aromatic Hydrocarbon Solvent

Note:

We can tailor make the non-volatile content and solvent according to customer needs.



## INK SPECIALITY ALUMINIUM PIGMENT

### Characteristics

ZK INKS are made especially for the ink industries. They are carried in ethyl acetate or ink oil. These pigments are made from specially selected spherical aluminium powders. The average particle size curve is narrowly controlled and under proper formulation, they impart a bright appearance with good coverage ability.

### Performance Parameter

#### Aluminium Paste

Grades	Non Volatile Content (±2%)	Average Particle Size(um)(D50)	Screen Analysis (325mesh<%)	Applications
ZK-907	70	7	0.5	Gravure Ink
ZK-9083	80	8	1.0	Gravure Ink
OP-9041	65	4	0.2	Offset Ink
OP-9052	65	5	0.5	Offset Ink
OP-9053	65	5	0.2	Offset Ink

Solvent: Ethyl acetate or Ink Oil

#### Aluminium Granule

Grades	Non Volatile Content (±2%)	Average Particle Size(um)(D50)	Screen Analysis (325mesh<%)	Applications
ZAS-907	85	7	1.0	Gravure Ink
ZAS-9083	85	8	1.0	Gravure Ink

For aluminium granule we use resin as binder.



## VACUUM METALLIZED PIGMENT

### Characteristics

This series imparts smooth surface, chrome-like mirror effect and high-reflective effect as well as good hiding power.

### Performance Parameter

Grade	Non-Volatile Content(%)	Average Particle Size(um)(D50)	Leafing/ Non-leafing	Applications
VMP-1074EA	10	10	Non-leafing	auto paint, spray paint, ink, nail polish etc
VMP-1082EA	10	8		
ZV-2101EA	10	10		
VMP-1065PM	10	6		
VMP-1054MMB	10	5		
VMP-1066PMA	10	6		
VMP-1074PMA	10	11		
VMP-2071PM	10	7		
VMP-2065PM	10	6		
VMP-2032PM	10	3		
VMP-1551PM	15	5	Leafing	Special for screen printing, like cell phone logo.
VMP-3101UV	10	10		auto paint, spray paint, ink, nail polish etc
VMP-3122F	10	8-9		
RB-3352	10	35	Non-leafing	Rainbow effect for auto paint, spray paint, ink

Solvent: EAC/PM/MMB/PMA





## SIO2 COATED ALUMINUM POWDER

### Characteristics

This series is aluminum powder coated with Sio2 with narrow particle size distribution, smooth surface and silver-dollar structure. This aluminum powder imparts brilliant metallic effects, strong hiding power possessing reliable stability, oxidation-resistance and weather-resistance ability.

### Performance Parameter

Grade	Average Particle Size D50(UM)	Al Content (+/-2%)	Sio2 Content (+/-2%)
ZPC-8081	8	73	25
ZPC-8201	20	73	25
ZPC-8383	38	83	15
ZPC-8504	50	83	15
ZPC-8705	70	83	15

Application: Powder coating, and coating on hardware, plastic, automotive, coil ect.



## LEAFING ALUMINIUM POWDER

### Characteristics

It adopts dry grinding, which is easy to disperse, good hiding powder and particle size dispersion, the surface is fine and smooth, with strong metallic effect.

### Performance Parameter

Grades	Non volatile Content (%)	Average particle Size(um)(D50)	Water covering (min cm <sup>2</sup> /g±10%)	Application
ZQ-810	99.6	80	7000	Ink, masterbatch, textile industries, powder coating
ZQ-820	99.6	60	9000	
ZQ-840	99.6	40	12000	
ZQ-860	99.6	30	15000	
ZQ-880	99.6	22	19000	
ZQ-8100	99.6	15	22000	
ZQ-8120	99.6	12	25000	
ZQ-8520	99.6	9	25000	
ZQ-8150	99.6	7	26000-35000	
ZQ-8051	99.6	4-5	≥45000	
ZLG-101	99.0	23	6500	anti-corrosive coatings
ZLG-102	99.5	16	7500	





## ALUMINIUM POWDER PASTE FOR AAC

### Characteristics

Aluminium powder is produced by dry grinding process. It has the advantages such as high active aluminium content, fast gas generating speed, easy dispersion, and long storage time. In addition, the particle size distribution can be controlled or adjusted based on different formula.

### Performance Parameter

Grades	Metal Content (>%)	Active Al Content (>%)	Stearic Acid (<%)	Gas Extraction Time (min)	Gas Extraction Volume (>ml)	Applications
ZL-201W-B04	98.2	90	2.0	10-14	75	AAC, light block, etc
ZL-201W-B05	98.4	92	2.0	14-18	75	
ZL-201W-B06	98.4	94	2.0	18-22	75	
Grades	Metal Content (>%)	Active Al Content (>%)	Screen Analysis (<%)	Gas Extraction Volume (ml)	Solvent	
ZQ-65W	65	85	3 (75um)	65-70	water	
ZQ-D7074	65	80	4-6(45um)	65-70	DEG	



## SPHERICAL ALUMINIUM POWDER

### Characteristics

This series is spherical aluminium powder with high purity. It is made especially for solar conductive aluminium powder, ceramic industry, high precision alloy, pharmaceutical industry, etc.

### Performance Parameter

Grades	Average Particle Size(um) (D50)	Density ≥g/cm³	Chemical Compositions					Applications
			Aluminum Content≥%	Impurities Content ≤%				
				Cu	Fe	Si	H <sub>2</sub> O	
Apsolar 01	1-2	1.4	99.8	0.015	0.20	0.20	0.10	Solar cell, ceramic, high precision alloy and pharmaceutical industry, compounding materials,etc.
Apsolar 02	2-3	1.4	99.8	0.015	0.20	0.20	0.10	
Apsolar 03	3-4	1.4	99.8	0.015	0.20	0.20	0.10	
Apsolar 04	4-5	1.4	99.8	0.015	0.20	0.20	0.10	
Apsolar 05	5-6	1.4	99.8	0.015	0.20	0.20	0.10	
Apsolar 06	6-7	1.4	99.8	0.015	0.20	0.20	0.10	
Apsolar07	7-8	1.4	99.8	0.015	0.20	0.20	0.10	
FLQT3	10-12	1.6	99.8	0.015	0.20	0.20	0.10	
FLQT2	14-16	1.6	99.8	0.015	0.20	0.20	0.10	
FLQT1	20-22	1.6	99.8	0.015	0.20	0.20	0.10	
FLQT0	30-35	1.6	99.8	0.015	0.20	0.20	0.10	

We can tailor make the particle size according to customer needs.  
Particle size range from 1um-2mm.



# BRONZE POWDER

## Characteristics:

This series is leafing flaky pigment, which is composed of copper, zinc, and aluminium powder. Bronze powder imparts good brilliance and metallic effect. Rich gold, pale gold, rich pale gold and copper powder are available.



## Performance Parameter

Grades	Shade	Average Particle Size (um)	water-covering (cm <sup>2</sup> /g)	Description&Applications
ZG-1034	Rich gold	3.1-3.6	≥12000	Super fine grade bronze pigment, offering high coverage in combination with smooth metallic brilliance, applied for offset printing.
	Pale gold			
ZG-1073	Rich gold	6.5-11	≥7000	Ideal covering power and brilliance for gravure printing.
	Pale gold			
ZG-2030	Rich gold	3-3.5	≥12000	Finer grade bronze pigment with great coverage and brightness, apploed for full types printing with great adaptation
	Pale gold			
ZG-2041	Rich gold	4.9-5.6	≥10000	
	Pale gold			
ZG-2072	Rich gold	5.6-7	≥8000	Fine product series combines good coverage with a high level of metallic brilliance, applied for plastic, paper and textile printing ect.
	Pale gold			
ZG-2103	Rich gold	7-12	≥4500	
	Pale gold			
ZG-2103C	Copper			
ZG-1102	Rich gold	9-13	≥5000	Coarse product seires with high level of metallic brilliance applied for dusting, paint and textile printing, screen printing and powder coating
	Pale gold			
ZG-1201	Rich gold	18-24	≥2500	
	Pale gold			
ZG-1354C	Copper	25	≥1800	
ZG-1354	Rich gold	30-40		
	Pale gold			
ZG-WB3101	Rich gold	6-8	≥9000	Water-based bronze powder, Ink grade product with extridinary metallic brilliance, also suitable for water-based ink system.
	Pale gold			
ZG-4203	Rich gold	19-23	Tarnish resistant performance: 30min at 230℃	Used in plastic molding powder, paint and other industries required high-temperature resistance.
	Pale gold			
ZG-4106	Rich gold	8-11	Tarnish resistant performance: 30min at 250℃	
	Pale gold			
ZG-4107C	Copper	7-11		



# PACKAGE, STORAGE, AND TRANSPORTATION GUIDE

## Package

Product Name	Package	Package size (mm)	Net Weight (Kgs)	Gross Weight (Kgs)	Max Net Weight/Pallet (Kgs)	Max Net Weight/20ft
ZQ Series Aluminum Paste	Steel Drum	Φ285*H360	25	26.65	1050	17500
ZK Series Al Paste&Water-based Al Paste	Steel Drum	Φ285*H360	20	21.65	840	14000
Spherical Aluminum Powder	Steel Drum	Φ285*H360	25	26.65	1050	17500
	Steel Drum	Φ560*H890	200	218.5	800	16000
Flake Aluminum Powder	Steel Drum	Φ285*H360	8	9.65	336	5600
Aluminum Pellets for ink	Steel Drum	Φ285*H360	7	8.65	294	4900
Aluminum Pellets for Masterbatch	Steel Drum	Φ285*H360	10	11.65	420	7000
Bronze Powder	Steel Drum	Φ330*H400	25	28	675	9000
Aluminum Paste for AAC	Woven Bags	/	25	25.1	/	23000
VMP&Rainbow Pigment	Steel Bottle	Φ85*H240	1	1.165	/	/

## Storage

Keep lids tightly sealed.  
Store in cool and dry place in tightly closed lid.  
Keep away from heat and direct sunlight.  
Prevent formation of dust.  
Ensure good ventilation.  
After long time storage, the paste becomes drier than before. Please recheck the products before use to avoid any loss.

## Transportation

Handle gently, and no acute collision. Transport in strict accordance with local transport regulations.

Note: Information presented herein has been complied from sources considered to be dependable and reliable and is accurate to the best of our knowledge and belief but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties expressed or implied except those that may be contained in our written contract of sale or acknowledgment.



Standard Steel Drum



Spehrical Aluminum Powder Package



Aluminum paste for AAC Package



VMP Package



Bronze Powder Package