

BOCHER POWDER COATINGS



B O C H E R

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B O C H E R

绍兴博澈贸易有限公司

ShaoXing bocher trade Co.Ltd

COMPANY PROFILE

Shaoxing Bocher Trade Co.,Ltd its predecessor was Hangzhou Bochao Building Material Co., Ltd established in 2003, dedicated itself to design and produce powder coating,interior and exterior wall coating material and other building materials. Its registered capital reaches to 15000000 USD, and area covers more than 6 thousand square meters, with certificate of IS O 9001:2008 quality management system acquired. We have 5 production lines with production capacity of 300 tons per month. We are a team of more than 30 staff, including 3 senior managers and 4 R&D staff. Our senior managers and R&D team visited abroad exhibition and market every year. We provide initiative products for the global market and are able to satisfy all requests of clients about the products. We have technical team to make sure that all the progress of the production is accurate even to the finished products. Each product has to pass Rigorous testing before container load. Till now, we have received lots of agreements in the South East Asia. Welcome to contact us!



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► Thermosetting polyester powders



Thermoset polyester (also called P type) powders are produced on the basis of high grade polyester resin specialized for powder coating production.

The products may provide coating film with toughness and durability, high gloss, good weatherability, especially outdoor exposure durability, heat resistance and excellent anticorrosive and anti-blooming properties.

The products are suitable for surface coatings of electric equipment, heating and ventilating facilities, bike, auto parts, agricultural machineries, labels and sign boards, daily hardwares, steel window frame, air conditioner, aluminium articles and outdoor utensils etc.



A. Principal Technical Indexes of Powder:

Item	Index	Note
Appearance(visual)	Homogeneous color without any agglomerate	
Fineness(180 mesh sieve residue)	<0.5%	Or per custom's request
Fused flowability(mm)	15°C±2°C 20-70mm(tilt test)	
Gel time	200±2°C 30-180s	
Curing conditions	200°C±2°C 10min	

B. Properties of Coating Film:

Item	Index
Color	Per standard panel and within the range negotiated by custom or supplier
Appearance(visual)	Smooth, light orange peel is permissible
Cured film thickness	60-80 μm
Bending test(tapering spindle)	3mm pass
Impact resistance(drop hammer)	50kg.cm pass(both direct and reverse)
Pencil hardness	2H without scratch
Gloss(60° gauge head)	High gloss≥85% Semi gloss:40-84%
Adhesion(cross cut test)	1mm 6x6 0 grade
Salt spray test	500h <1 grade
Humid heat resistance	1000hr <1 grade
Cupping test	≥6mm
Outdoor sun test 12 mth.	Good, no blooming

► Thermosetting Epoxy/Polyester Powders



Thermosetting epoxy/polyester powders with a great variety and wide selection of colors, include a series of products such as standard curing, rapid curing and low-temperature curing powders with high gloss, semi-gloss, matt, metal and transperence finishes.

The products may provide excellent decorative appearance. The coatings are durable and adhesive with good heat resistance and superior mechanical and physical properties.

The products are suitable for surface coatings for home electric appliance, furniture, document cabinet, kitchen utensils, display racks, mechanical and electrical equipment, cases of instrument and apparatus, hardwares, copper and aluminium articles etc.

A. Principal Technical Indexes of Powder:

Item	Index	Note
Appearance(visual)	Homogeneous color without any agglomerate	
Fineness(180 mesh sieve residue)	<0.5%	Or per custom's request
Fused flowability(mm)	15°C±2°C 20-70mm(tilt test)	
Gel time	200±2°C 30-180s	
Curing conditions	180°C±2°C 15-20min	Effective temperature

B. Properties of Coating Film:

Item	Index
Color	Per standard panel and within the range negotiated by custom or supplier
Appearance(visual)	Smooth, slight orange peeled
Gloss(60° gauge head)	High gloss type ≥85% Semi gloss type: 51-84% Low gloss type: 50-15% Matt type: <14%
Impact resistance(drop hammer)	60-80 μm
Cured film thickness	High gloss 50kg.cm pass (both direct and reverse). Semi-, low gloss and matt: pass (direct), per custom's request(reverse).
Pencil hardness	2H without scratch
Adhesion(cross cut test)	1mm 6x6 0 grade
Bending test(tapering spindle)	3mm pass
Salt spray test	500h <1 grade
Humid heat resistance	500h <1 grade
Cupping test	≥6mm

► Thermosetting epoxy powders



Thermosetting epoxy (also called E type) powders include a series of products such as standard curing, rapid curing and low-temperature curing powders with high gloss, semi-gloss and matt finishes. These products may provide coatings with excellent adhesion, hardness, chemical resistance, physical and mechanical properties. They are suitable for surface coatings of kitchen utensils, cases of instruments and apparatus, display racks, mechanical and electrical equipments, auto parts, copper and aluminium articles etc.

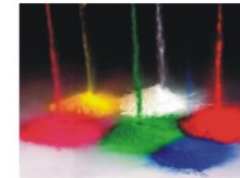
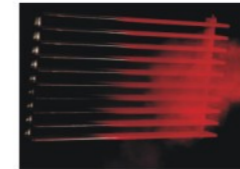
A. Principal Technical Indexes of Powder:

Item	Index	Note
Appearance(visual)	Homogeneous color without any agglomerate	
Gel time	200±2℃ 30-180s	
Fineness(180 mesh sieve residue)	<0.5%	Or per custom's request
Fused flowability	15℃±2℃ 20-55mm(tilt test)	Or per custom's request
Curing conditions	180℃±2℃ 15-20min	Effective temperature

B. Properties of Coating Film:

Item	Index
Color	In accordance with standard panels or within the range, negotiated by custom or supplier
Appearance of film(visual)	Smooth, slight orange peeled
Gloss(60° gauge head)	High gloss:≥85% Semi gloss:51-84% Low gloss:50-15% Matt:<14%
Cured film thickness	60-80 μ m
Impact resistance(drop hammer)	50kg.cm (4.9Nm) pass (direct)
Pencil hardness	2H without scratch
Adhesion(cross cut test)	1mm 6x6 0 grade
Bending test(tapering spindle)	3mm pass
Cupping test	>6mm
Dent hardness	4kg(39N) pass
Salt spray test	500h
Humid heat resistance	500h

► Thermosetting Powder Coating of Low-temperature Curing Type



Thermosetting powder coating of low temperature curing type is a newly-developed powder coating which is used on the things that are not suitable for high-temperature baking. This type of powder coating opens up wider application by lowering curing temperature to 120℃--160℃.

It can be used for surface coatings on such things as flaw detectors, auto water tanks, springs, electrical appliances with coils, instruments, equipment with tin welding seams. It can also be used on the products made of aluminum and magnesium materials, glass, plastics and wood etc.

A. Principal Technical Indexes of Powder:

Item	Index
Appearance(visual)	Homogeneous color without agglomerates
Density(g/cm3)	1.2--1.8 (Depending on colors)
Fineness(180 mesh sieve residue)	≤0.5%
Curing conditions	120℃-160℃ 30-10min

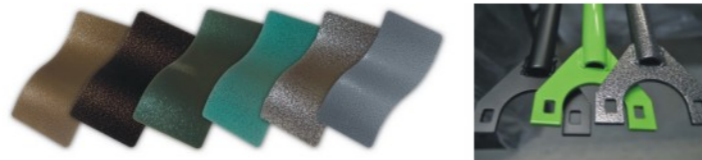
B. Properties of Coating Film:

Item	Index
Appearance of film(visual)	Smooth, slight orange peeled
Film thickness	60-80 μ m
Gloss(60°)	≥85%
Impact resistance(drop hammer)	≥50kg.cm
Cupping test	>6mm
Flexibility	3mm
Pencil hardness	2H
Salt spray test	1000h pass
Humidity resistance	1000h pass
Acid resistance(5%HCl)	240h pass
Alkali resistance(5%NaOH)	240h pass

The above data is obtained under such conditions as follows: A piece of 0.8cm steel plate is pretreated through sand blasting or zinc phosphating. After coated, it is baked in the oven at 120-160℃ for 30-15min.

► Thermosetting Art-Veins Powders

Thermosetting art-veins powders include such varieties as coatings with hammer, wrinkle, texture and other finishes. The products may provide coatings with excellent decorative effect and the stereoscopic sense. The coatings of toughness and durability have not only covering capacity for the rough surface of workpieces or articles, but also good resistances to abrasion, scratch and chemical corrosion. The products are suitable for surface coatings of castings, pressure casting, heavy-duty machineries, engineering structural parts, freezers of chemical plant, kitchen utensils, steel pipe, frame, mechanical and electrical equipments, hardwares and tools, textile machinery, instruments and apparatus etc.



A. Principal Technical Indexes of Powder:

Item	Index
Appearance(visual)	Homogeneous color without agglomerates
Density(g/cm ³)	1.3--1.8 depending on colors
Fused flowability(mm)	150°C±2°C 15-60mm(tilt test)
Fineness	Per the process request
Curing conditions	180°C±2°C 15-20min

B. Properties of Coating Film:

Item	Index
Appearance of film(visual)	Even and uniform distribution of veins
Cured film thickness	70-100 μm
Gloss(60° gauge head)	Depending on demand
Impact resistance(drop hammer)	40kg.cm pass(direct)
Cupping test	>4mm
Bending test(Tapering spindle)	3mm pass
Salt spray test	>500h
Humidity resistance	>500h
Acid resistance(5%HCl)	240h pass
Alkali resistance(5%NaOH)	240h pass

► Welding line protection powder coating



Welding line protection powder coating is made up of thermoset synthetic polyester resin, mainly used in the welding, touch-up or protection of three-piece can body. The product is suitable for most of the three-piece can body, including food cans, milk powder cans, drink cans, aerosol can, chemical barrels or paint bucket. It has good chemical resistance, excellent adhesion and good flexibility properties. The paint film for the protection of the seam obviously better than the liquid type, it can protect the side seam of the cover better and make the seam welding corrosion effects to a minimum.

A. Principal Technical Indexes of Powder:

Item	Index
Appearance(visual)	Homogeneous white color without agglomerates
Density(g/cm ³)	1.29g/m ³
Dry solids	>99%
Melting Point(DSC)	166+/-3°C
Curing conditions	180°C±2°C 15-20min
Particle Size	99.5+/-0.5 < 100 μm
flow index	>100

B. Application of Powder:

Item	Index
Application method	Electrostatic spraying
Substrate	Tinplate, steel and TFS
Film appearance	Flat, smooth and thick-even
Cured film thickness	72-159g/m ² 50-110 microns
Curing conditions	9+/-2 sec at 280°C PMT Hot air, gas etc, or 10+/-1min at 200°C Hot air, gas etc,
Storage	at <30°C
Shelf life	24 months at <30°C

▶ FACTORY PRODUCING PROCESS



FIRST STEP

Mix and Agitation

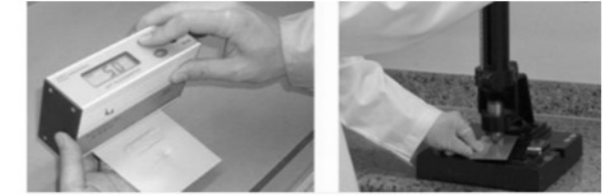
The polymer granules are mixed with hardener, pigments and other powder ingredients in a mixer



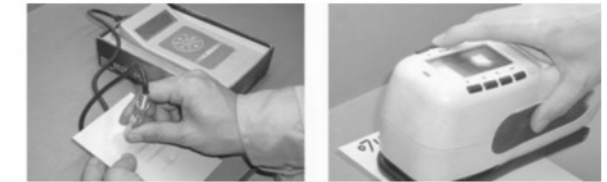
THE FOURTH STEP

Powder Grinding

The chips are milled and sieved to make a fine powder



Gloss test-Impact test



Thickness-color test



Color assessment-particle size analysis

THE FIFTH STEP

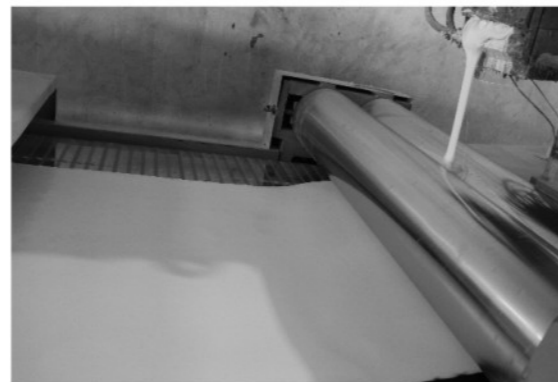
Testing

We stick to sophisticated testing process ensure the quality of each batch

THE SECOND STEP

Extrusion

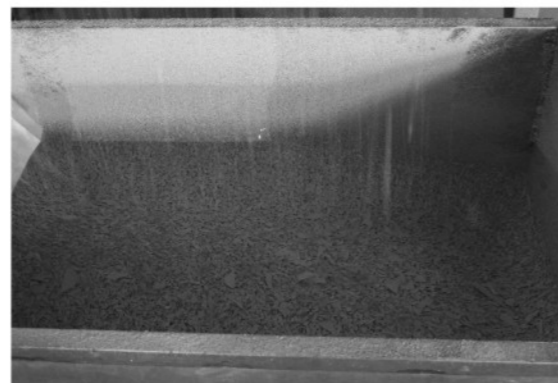
The mixture is heated in an extruder, then rolled flat



THE THIRD STEP

Crush

Cooled and broken into small chips

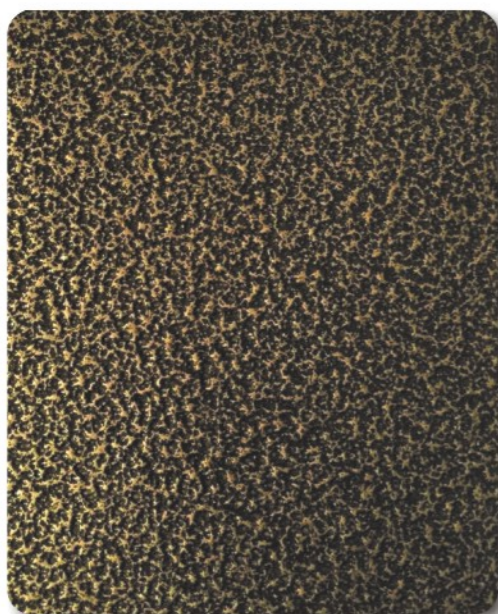


LAST SETP

Packed Products

Inner packing: 0.1mm polyethylene film bag
Outer packing: 20KG/Carton

▶ EIGHT TYPE PRODUCTS



Antique Effect



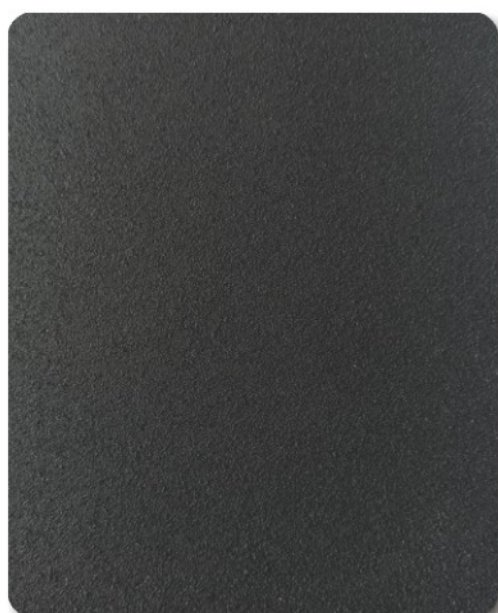
Leather Effect



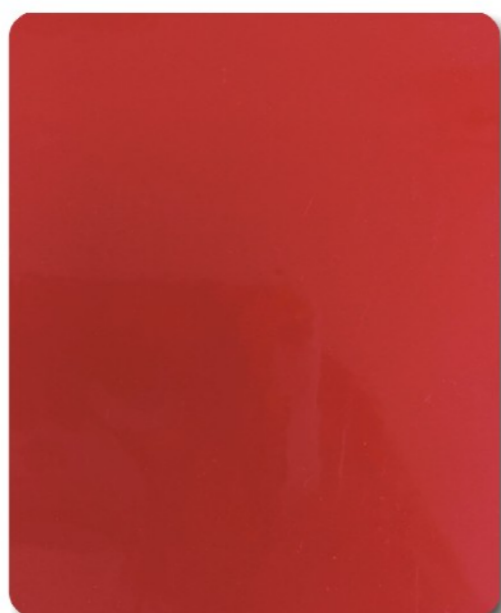
Texture Effect



Transparent Effect



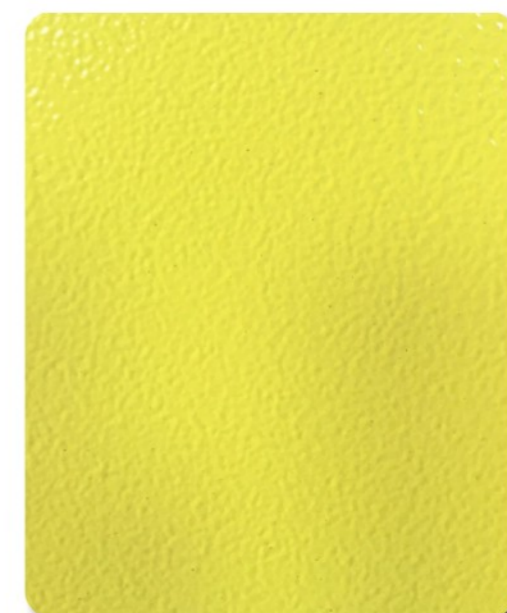
Sand Effect



Smooth Effect

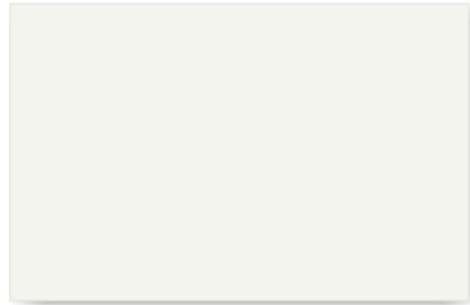


woodgrain effect

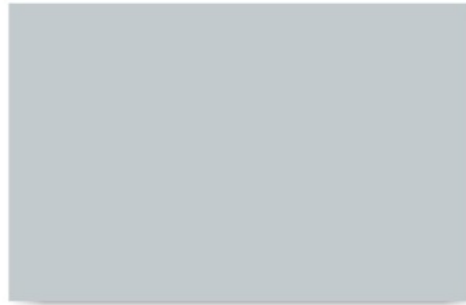


Wrinkle Effect

▶ RAL/PANTONE COLORS



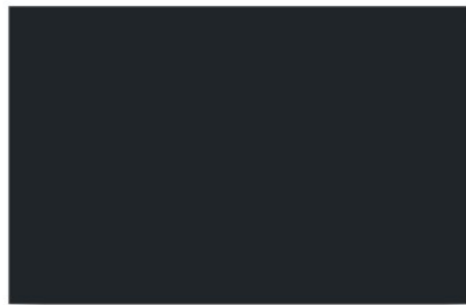
RAL 9010



RAL 7035



RAL 7033



RAL 9005



RAL 5002



RAL 6010



RAL 2011



RAL 3003

Color can be customization, Bocher powder can match any RAL color or PANTONE color. Welcome to sample customization, we continue to provide customers with the best after service and free sample.



Quality Policy:

Credit is the basis,
Quality is the first;
Technological innovation
Make sustained improvements

Quality Goals:

- 1.The first acceptance rate of product over 95%; (an increase of 0.5% in each year)
- 2.100% contract compliance
- 3.The customer satisfaction rate over 95%(an increase of 0.5% in each year)

We specialized in researching and developing producing various kinds of high and middle-grade powder coating. We choose high quality raw material, adopt the reasonable formulation and production technology. Strictly control on every quality control points, to ensure the quality to produce excellent products. Products are widely applied to shelves, warehousing, electric control cabinet, security doors radiator, aluminum product, office equipment, three-wheeled motorcycle, home appliances, timeout shelves, street lamp lighting, highway guardrail, auto parts, etc.

Operation Guideline for Powder Coating



Process control for electrostatic painting

1. Voltage setup

In certain circumstance, the adhesiveness of powder coating will increase when the voltage setup increase. However, when the voltage surpasses 90KW(actual voltage), the adhesiveness will decrease in the case.

2. Distance between spray gun and work piece

Normally, it is suggested to keep the linear distance between spray gun and work piece at 150~300mm.

When the distance is too long, the influence of the voltage on the painting thickness will decrease. When too close, it is easy to get pinhole defects because the film is broken due to too high voltage.

3. Control of powder spray amount

Initial increase of painting thickness is proportional to spray amount. However, when the painting time lasts, the increase of spray amount has less influence on the painting thickness increase and furthermore decreases piling efficiency. Normally, the spray amount is suitable at 100~200g/min.

Special tips

Three factors have obvious influence on the painting result: gun distance, voltage and spray amount.

Temperature control for electrostatic painting

1. Too high baking temperature or too long baking time
White and light color powders will become more yellow or deeper yellow.
Semi-glossy powders will become lower gloss.
Decrease physical and chemical characters.

Normally baking temperature is under 220°C.

2. Lower baking temperature or shorter baking time
White and light color powders will become too whitish or less yellow.
Semi-glossy powders will become higher gloss.
Lower functionality impact on bending, adhesion, hardness, anti-chemical.

Difference between gas oven and diesel/ electric oven

White and light color powder will be yellowing or deeper color when using gas oven.
Using diesel and electric oven has closer effect with that lab.

RAL (Powder coated) Colours



PANTONE (Powder coated) Colours



► CERTIFICATION



► WELCOME TO SAMPLE CUSTOMIZATION

Powder coating is a high-quality, durable finish, allowing for maximized production, improved efficiencies, and simplified environmental compliance. The perfect coating for your project!



Purchase Note	
Prices	Prices depend on the colors and using environment, please tell us the colors and using environment (indoor use or outdoor use).
Sample	1kg powder sample is available for each color for your testing. One sample is free of cost, but you have to pay for the air freight.
M.O.Q	The minimum order is 500kg, each color \geq 100kg.
Payment	30% T/T prepayment, 70% T/T before shipment (or against BL) or L/C at sight.
Time of delivery	Production normally will be delivered in 5-8 days after receipt of prepayment.
Our service	<ol style="list-style-type: none"> 1. We offer professional products and fast delivery. 2. We will help you solve problems during your usage of our products. 3. Any question can turn to the technology department of our company.