

P05 exterior application powder coatings

Base on polyester PRIMID powder coatings. Industrial application

Product feature:	Typical application:	Coating appearance:	Gloss range
Good weather resistance	Machine parts	Smooth glossy	Smooth surface : 15~85%
Good flow	Auto parts	Smooth semi-gloss	Texture : 3~15%
Good storage stability	Garden furniture	Smooth matt	
Zero VOC	Fitness equipment	Texture	
Green and environment friendly	Outdoor fence	Rough texture	
	Metal ceiling		

- Packing size:** 20KG/box
- Specific gravity:** 1.2~1.7g/cm³, (relative to product color)
- Theoretical coverage:** 9.8~13.8m² depend on specific gravity (60um film thickness)
- Shelf life:** 6 months from date of delivery with dry condition no more than 25 °C

Application guideline:

Pretreatment:

Suitable pretreatment including:

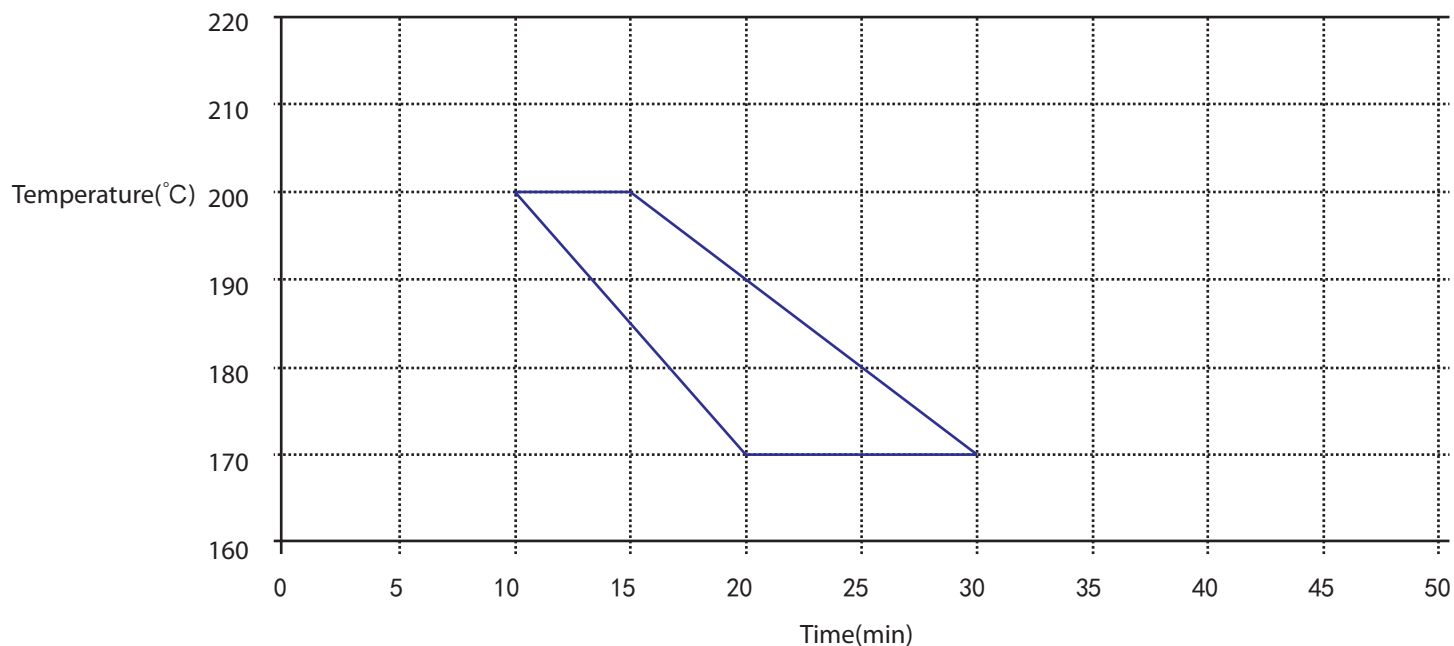
- Aluminum: yellow chroming treatment(according DIN 50939), green chroming treatment, chrome free treatment
- Steel: sand blast/ball blast (SA 2.5), iron phosphating or zinc phosphating
- Galvanized steel : zinc phosphating, chroming
- Stainless steel: ball blast. Recommended maximum depth 25 microns

Processing:

- Corona spraying
- Tribo* spraying

Attention: suitability of metallic powder for tribo processing must be verified prior to actual application

Cure window: (substrate temperature)



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Product performance data sheet:

The data is checked on 0.7mm thickness chromating aluminum panel. Actual product performance may have some difference due to different process ,different pretreatment.

Test items	Test standard	P05 smooth finish	P05 texture finish
Gloss(60°)	ISO 2813	15~85 unit	3~15 unit
Film thickness	ISO 2360	60~80 microns	70~90 microns
Adhesion(1mm)	ISO 2409	0 level	0 level
Impression hardness	ISO 2815	≥85	≥85
Cupping	ISO 1520	≥5mm	≥5mm
Mandrel bend	ISO 1519	≤5mm	≤5mm
Impact(20inch.lbs)	ASTM D-2794	Direct and reverse pass	Direct and reverse pass
Humidity(1000hrs)	ISO 6270-1	Maximum blistering less than 1mm	Maximum blistering less than 1mm
Salt spray(1000hrs)	ISO 9227	Maximum blistering less than 1mm	Maximum blistering less than 1mm

Special end use attention:

- The suitability of the coating must be checked before post bending, Microscopic cracks in the film of the powder coating can lead to corrosive damage.
- Coating joint sealant and any other surface contact with the coated protection auxiliary products, such as lubricating wax, drilling cutting lubricant, PH value must be neutral, and cannot affect coating performance.
- When using recycle powder, the recycling powder ratio need verify first.
- In order to achieve enough hiding, The coating thickness should be at least 75 microns , but not more than 110 microns. Bright colors may require a higher film thickness.

Attention for metallic powder coatings

• Color control: Even with the most strict standards for color control is unable to avoid color different and effect subtle differences between batch to batch, In order to avoid the possible differences in color and effect, Please compared with standard panel in advance before application.

The spraying system may cause color or effect difference , suggesting using the upper and lower deviation panels to control color and finish effect.

In order to ensure the stability of color and effect between batch to batch, please fix process parameters, such as voltage, air pressure, spray gun, the distance to the workpiece ,fixed recycle powder add ratio etc.

• Recycling powder add ratio: In order to achieve uniform color and effect, the fresh powder using ratio should be determined according to the actual situation, and should not be less than 70%. At the same time the reclaim powder should only be continuously added and sieved into the powder circulation. Because the recycle metallic powder is no stable, it can't add more than 30%. Please verifying color and effect before using recycling powder.

• Spray gun choice: For metallic powder application, usually only use electrostatic spray gun, only for a few metallic powder tribo spray gun could be used. Suitability of metallic effects for tribo processing must be verified prior to application.

Because the powder particles and metallic particles charged ability is different, the metallic particles can't all be adsorbed onto the spraying workpiece, this will lead to color or effect difference. Usually metallic powder application methods are not recommended from electrostatic spray gun change to tribostatic spray gun.

• Grounding requirements: When using metallic powder coatings, the powder-spray system and the object to be coated must sufficiently be grounded. This measure contributes significantly to the consistency of the color and effect.

• Coating cleaning: building coating needs to be cleaned at least once yearly. For coating texture effect, due to the rough surface, not easy to clean, it can clean with clean water or a weak base solution, and non-woven wipes, cannot be used with the friction and swab scraping tool, also can't use high pressure cleaning equipment. Need water to rinse after cleaning. Cannot use organic solvent cleaning, even the short-term use of organic solvents, such as nitro thinner or acetone, alkaline and acid and high abrasive cleaning agents can be causing irreversible damage on the coating surface.

Health and Safety:

Please according our product material safety data sheet required to wear personal protective equipment, For detailed information please read the ALD product safety data sheet before use.

Disclaimer:

Product data sheet is updated periodically, the latest information and provide the relevant properties of the product. Please use our new version product data sheet. Product data sheet recommendations for the use of our products are based upon experience and in accordance with present technological standards. These are given in order to help customers; however, because the difference of method and process of different customers, lead to some uncertain and uncontrollable factor, ALD company does not undertake any obligation to the final result, also not as supplementary commitment of the purchase agreement. Please verify the product adaptability before using this product.