

## Glass coating for car body

### ZC1000



『ZC1000』 is a hardly-oxidized agent which can form glassy coating films without organic materials like mineral oil based solvent, which are generally included in other existing coatings.

This product is a one-pack type glassy one which is cured together with the under layer, paint coating films. It is completely VOL free and meets Japanese Food Sanitation Act.

GREAT DURABILITY

EXCELLENT WEATHER RESISTANCE

PROFOUND FEELING BRIGHTNESS

HIGH WATER REPELLENCE

FORMING EXCELLENT HARD COATING FILMS

## PERFORMANCE

### Beautiful brightness and Super water-repellent effect

The Siloxane bonded coating films make a car body water-repellent and brighter than a new car and its gloss can be kept semi-permanently.

### Excellent hard coating films and antistatic effect

The hardness of the coating films based on Organosiloxane is enough high to protect the under layer, paint coating film from small scratches (Pencil hardness: 6-8H)

The electrostatic voltage is low and stays in a short time. So just a small quantity of soot stick to the surface and it is easy to remove the soot only with water.

### Superior antifouling effect

The coating films formed by ZC1000 have superior antifouling effect and keep a car body away from oil spots. They also have excellent heat-resistant effect and they are also hardly-soften even under high temperature. So the surface does not include soil inside and a car body can be maintained only with water. Insects stuck to a car body while running on highways can be also removed easily.

### Excellent weather-resistance and durability

Inorganic coating films are not affected by heat nor UV. They protect a car body from saltwater, acid rain and dead insects while keeping a car body highly bright.

### One-pack type & Solvent free

ZC1000 is a solvent free coating agent and does not contain VOC which is generally used in other coating systems and paints. Therefore, this is an environment-friendly and technologically innovated product for next-generation.

### Use of Nanotechnology

Organosiloxane oligomer particles sink to the surface of under layer, paint coating films before curing and form very hard coating films together with the paint coating film. They are inorganic & glassy, staying on a car body to protect it semi-forever.

## TECHNICAL DATA

Item	Result	Testing method
Hardness of coating films	6-8H	JISK5600 5-4
Mirror brightness	88	JISK5600 47 (60°)
Chemical resistance	Passed	Spot test for 1 month
Solvent resistance	Passed	Spot test for 1 hour
Water resistance	Passed	JISK5400 (dipped in city water for 1 month)
Boiling water resistance	Passed	JISK5400
Freezing & melting resistance	Passed	ASTM 150C/C-20°C~20°C
Flammability	Non flammable	
Water permeability	0 ml	JISA1404
Heat resistance	500°C	Temperature to become hydrophilic
Salt water resistance	Passed	JISZ371 Salt spray test
Accelerated weathering performance	Passed	Sunshine weather meter 3000hv

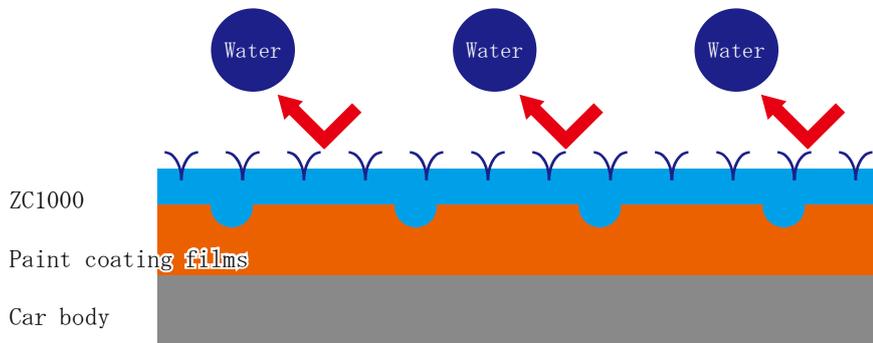
### Performance comparison vs competitors

Product	Existing other polymer (Competitors)	ZC1000
Degradation	Degraded by UV and Oxidation (Powdering)	No change
Stain	Stains sink into surface by heat Oil slick and water deposit on surface	Easy to be removed Easy to be removed
Iron powder	Attached on surface (No resistance)	Not attached
Bird's dropping, insects	Attached on surface (Degraded by oxidation)	Easy to be removed
Scratches while cleaning	Easy to be scratched because it is easy to reach the under layer, paint coating films directly.	Difficult to be scratched because highly strong coating films on the under layer, paint coating films.
Durability	Easy to be removed while cleaning a car body or raining because it is just put on the surface of the under layer, paint coating films.	Difficult to be removed because very hard coating films are formed together with the under layer, paint coating films.

# MECHANISM

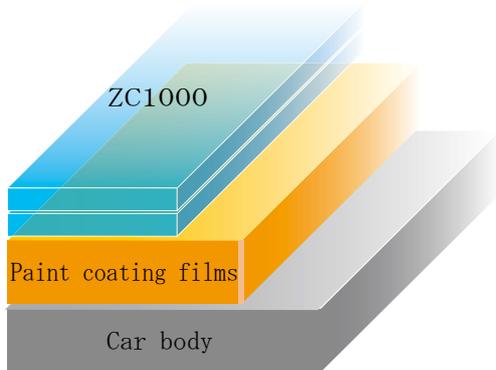
## Grassy coating films + Water-repellence

Water-repellence is caused because fibrous water repellent group is formed in the Siloxane bonded polymer. ZC1000 is a hybrid coating agent which combines main inorganic films and the organic group obtaining water repellent effect.



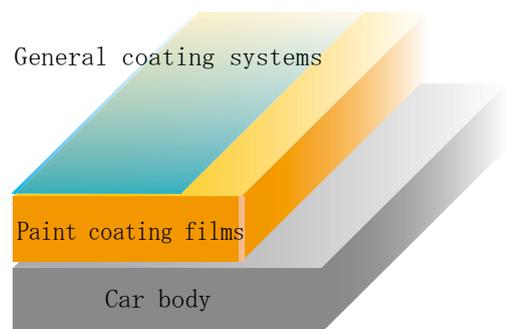
ZC1000

Coating film thickness 5.00 micron



General coating systems

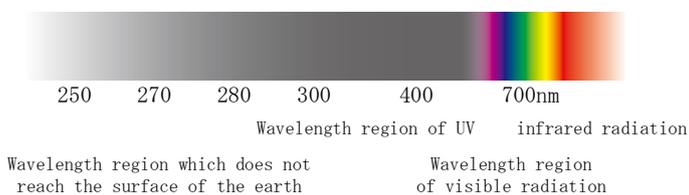
Coating film thickness 0.25 - 0.5 micron



ZC1000 forms super excellent coating films.

ZC1000 forms about 5 micron films by repainting of high concentrated composition. This thick and hard coating films create profound feeling brightness and excellent performance. On the other hand, the majority of the usual coating systems form only thin coating films so the performance is not enough.

## Degradation by the influence of UV



The usual coating systems cause the degradation phenomenon like chalking to organic resin due to the influence of UV.

ZC1000 is a coating agent which forms films comprised of inorganic polymer based on non-flammable material, Silica. It does not contain any absorbers which damage organic materials with degradation and decomposition in the UV wavelength region (280 - 400nm), therefore it is difficult to suffer degradation.

Exclusive Distributor

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