

GLOBAL SUZUKI COMPANY PROFILE& PRODUCT CATALOG

Adhesion improving apparatus

GAS Glass Primer.

"GAS Glass Primer." (GGP, for short) is a movable ITRO treatment kit (ITRO treatment has a Japanese Patent (Patent No. 3557194)).

GGP is a surface treatment system based on a new concept by which a nano-scale silicon oxide layer is formed on a surface of a coating substrate by oxidizing flame with a flame burner.

In the other words, GGP is totally different from conventional surface treatments that modify only a substance consisting of the surface of a substrate (e.g. flame treatment, corona treatment, or plasma treatment) because GGP provides the surface with an adhesive material.

GGP requires almost the same processes as a conventional flame treatment and only a few sec.



GAS Glass Primer, 100



GAS Glass Primer. -X

FEATURES

Use of Water-Based Lacquer

GGP makes various surface superhydrophilic, so that a water-based lacquer or ink can be applied.

Improvement in production process

GGP does not require an undercoating process using a solvent for primer or the like or a drying process for the undercoating, so that production process can be extremely shortened.

Cost-saving in production

GGP does not require expenses for apparatuses for undercoating or the other pretreatment or for running them, so that large cost-down is possible.

Reduction of defectives

The improved wettability of the substrate surface by GGP prevent a pinhole from generating when coated with a lacquer. Also, leveling of the lacquer is improved, so that the rate of defectives is reduced.

Environmental friendly

No use of solvent or heavy metal, which gives a pollution to environment.

Improvement in productivity

Elimination of problems caused by unstable surface condition by GGP improves productivity, for example, raise of operating rate.

Creation of new material

An adhesion between materials, which had not been adhered each other conventionally, enables to make new material.

Improvement in recoatability

GGP allows various coating layer to be recoated (e.g. UV printing on UV hardcoating, recoating on fluorine coating, recoating of UV coating, etc).

Effects

GGP provides various materials with an improved adhesiveness. Especially, application of GGP to an adhesion between different kinds of materials, which has been considered to be potentially difficult, can offer satisfactory result (e.g. adhesion PP with urethane or silicone rubber with plastic).

Difficult-to-bond materials will also be possible adhesion



Adhesion between silicone rubber and PP



Adhesion between thermoplastic elastomer



Adhesion between silicone rubber and PET (with double-sided tape)

Superhydrophilicity (Hydrophilization)

GGP provides various substrates with a greatly improved hydrophilicity. The treated surfaces of various substrates show a hydrophilicity of 73 dyne / cm or more in wettability, 10° or less in contact angle.



Hydrophilized aluminum (GGP Treated:Only right-half)



Hydrophilized polypropylene (GGP Treated:Only right-half)

	Glass	PP	HDPE	SUS	Aluminum
No treatment	≧ 35	≧40	≧38	≧ 34	≧40
Corona treatment	≧ 35	≧46	≧46	≧ 34	≧40
Flame treatment	≧ 35	≧35	≧ 50	≧ 34	≧46
Use GAS Glass Primer	> 73	> 73	> 73	> 73	> 73

Primerless Adhesion

A surface modified by GGP shows similar effect to a primer-treated surface. Namely, GGP is a dry-primer treatment.



Peeling off test of coating on elastomer (GGP Treated:Only right-half)



Electron microscope photo

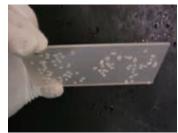


The surface state of the pre-treatment (left) and after treatment (right).

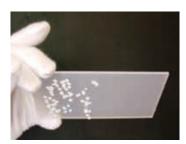
White dots is silicon oxide made by GGP Treatment. (It is Invisible to the naked eye.)

Antistatic effect

GGP provides a plastic surface with a conductivity of 106 to 108 Ω , that is, GGP provides almost same effect as an antistatic compound addition to the plastic, resulting in preventing dust adhesion.



Before GGP-Treated : Polypropylene (adhesion of paper dust by static electricity)



After GGP-Treated :Polypropylene (GGP Treated:Only right-half)

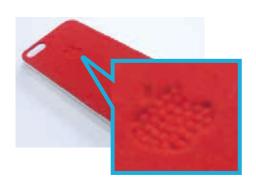
Flocking paint system FAB-IRO

The FAB-IRO (Fabiro), the texture of velvet and Alcantara with a touch is good feeling of luxury, is a system for reproducing by painting. Not choose the shape of the object because it is a painting, also because of the wide target materials and colors, you can get easily the appearance of a high degree of satisfaction original

FEATURES

Subject material is not plastic-metal only, is wood, ceramic, leather, and vinyl wide. And, not choose the shape and size of the object because it is a painting.

Clearly also Apple's logo on iPhone case and fine line of a small elephant figure.





Use in the same way as normal paint, without special technique

Procedure is simple 3 steps. paint the base paint -> fiber spraying -> drying. For possible construction in the same way as normal paint, immediately construction is possible at all.







pile spraying



complate!!

10 color variations. Original color can make it by further mix.

The pile color of FAB-IRO is 10. White, Black, Red, Navy, Sky blue, Yellow, Green, Beige, Gray and Brawn. You can mix them by yourself and make various color you want.

FAB-IRO Starter Kit

The FAB-IRO dedicated coating device, base paints, piles, the 3D sample shades, and agitator cover for color samples. (It is an example for Japane user.)







Glass scales removal system BUFF-MINN

BUFF-MINN is a polishing system for to remove the water stain and silica scale especially on window shield of automobile, and other inorganic glass safe and firmly. A dedicated compound and BUFF-MINN, that if you used in conjunction with your existing polisher, you can remove the water stain and silica scale that had tightly bound to the glass.

FEATURES

- ✓ Because this system remove water stain and silica scale by polishing, It does not affect for the human body and metal corrosion.
- ✓ BUFF-MINN is made with new developed special material, with a dedicated compound, you can remove the water stain and silica scale safely and quickly.
- ✓ Water stain and silica scale on a little coarse glass of the surface such as a truck, and many years deposited dirt, you can remove easily.



BUFF-MINN & BUFF-MINN compound

Window Glass Coating

Our window glass coating is the only one and very unique coating system for inorganic glass. It is a mirror-finishing glass coating system stuck to the clarity of sight!

FEATURES

- ✓ Lasting beauty and shine like new glass.
- ✓ Excellent adhesion. No peeling, no cracking, no fading.
- ✓ Transparency is increased, improving the clarity of vision.
- ✓ Also persist about one year water-repellent effect in the wiper surface.
- ✓ To reduce the adhesion of dirt oil slick-water stain, and allows for easy removal of dirt.





Driving without stress even in heavy rain or at night. (left side is no-coat , right side is coated.)



High water-repellent of the contact angle of 110 degrees







High weather resistant - Possible to use ship. (left side is no-coat , right side is coated.)



High Transparency - Suitable for Show window.

Penetration type hydrophilic coating agent nano Glass Veil F'zero

nano Glass Veil F'zero is a hydrophilic coating agent of pure vitreous. This coating agent make shinny and repel the dirt surface, which made by pure glass. This agent has high safety, silicone is not used, you can use it to variety of things, such as paint surface, glass, rubber, leather and so on.

FEATURES

Since it is pure vitreous, it does not take some stains uneven.

nano Glass Veil F 'zero contains the same components as glass. Because it doesn' t contain cellulose fiber, synthetic resin and fluorine, even if you work under the scorching sun, coating surface does not become some stains uneven.

In addition, since the excess coating agent on the surface after drying can be washed away with water, non-uniformity due to wipe mistake does not occur.

Penetrate to material and make certain adhesion, keep the shine of the car a long period of time

Vitreous penetrate material and make certain adhesion, will persist shine and transparency for a long period of time.

No need to choose the material, it can cope with everything in this one.

Can work without choosing the material, and it does not detract from the texture. Working methods is the same. You will be able to work easily to various places.

Shows the same hydrophilic with glass, and will exert anti-fouling and self-cleaning effect.

The surface in the same way as glass, shows the hydrophilic. Less in the amount of water indicates the water-repellent state, it indicates a hydrophobic state to a large amount of water.

It enters into fine gaps on the surface, and it lift up the dirt.

Alkaline water and glass, let embossed export the intruding dirt into fine gaps of the material surface.

Construction is very simple.

Easy installation of the process is simple.

- 1. Car wash
- 2. Degreasing
- 3. Hand painted with sponge (spray, dipping etc.)
- 4. Dry (we recommend twice, if necessary more times, it depend on the surface condition)
- 5. Wash the residue on surface.

By applying heat by direct sunlight or heater at the time of drying, You will have a fine finish.



Optional agent, for to protect from salt damage and for to make surface harder.

By adopting in conjunction with the functional coating of options, it is possible to further enhance the functionality of the coating.



<u>nano Glass Veil</u> F' zero HARD

Hardness is increased and overlaid on top of the F' zero



nano Glass Veil F' zero Snow & Salt

On top of the F' zero to protect from salt damage



<u>nano Glass Veil</u> <u>F' zero Keeper</u>

This is a maintenance solution of F-zero

Water-repellent coating agent nano Glass Veil F

nano Glass Veil F is a hybrid coating composed with water-repellent layer of the glass layer from the fluorine-based materials and the glass layer from the siloxane resin, and formed at the same time. The water-repellent state is beautiful, glass coating maintains the gloss over a long period of time.

FEATURES

Since wet construction, workability is very good.

It reacts with water to form silica glass. Complete drying after cleaning because it is possible the construction in a state in which the substrate water remaining is not required. because it is possible the construction in a state in which the substrate water remaining, so complete drying after washing is not required. After yelling coating on a dedicated sponge to each part, we will give wipe in about 5 minutes, and then wipe the last to finish the whole. After construction completion also react with moisture in the air, and then cured. Completely cured in about 48 hours.

Hardness and adhesion is very high level, maintain the beautiful appearance a long period of time. Since the nano Glass Veil F attached to the painted surface with

anchoring, very high adhesion, and long-term stable fixation. In addition, since the film has high hardness high antifouling, anti-scratch resistance, and firmly protect the car.

Fluorine-based coating film provids a beautiful water slip and high anti-scratch resistance. Fluorine-based coating to achieve the state should be called more than a water-repellent "water slip", so you to

Fluorine-based coating to achieve the state should be called more than a water-repellent "water slip", so you to also slip deposits to the body, also has excellent anti-scratch resistance. This effect also lasts about six months in normal use, the glass coating protects the car even then

Easy maintenance

It is OK only wash normal. If you with a heavy soil, that is where I am washed with a dedicated car shampoo, shine will return.

Excellent Water-repellent coating agent nano Glass Veil J

nano Glass Veil J is, combines more than a nano Glass Veil J as "luster" and "water slip", is a super water-repellent glass coating. Blended with fluorine and special metal to siloxane bond, the next-generation hybrid type. Spiral-like coating of the 3D structure is in close contact with the painted surface, and firmly guard the car.

FEATURES

By helical structure + fluorine, it has achieved an ultra-smooth water.

The addition of fluorine to the coating of 3D structure, water repellency, water droplet sliding properties of durability, durability, weather resistance, chemical resistance, restraining force of the water droplets scar, stain resistance and the like have been greatly improved. Of course, is alive and well even gloss with a moist and deep.

Stuck in VOC free.

nano Glass Veil J, the performance is, of course, was stuck in it is a VOC-free. While proud of the high anti-scratch resistance with high hardness, friendly coating agent to humans and the environment.

Completely cured in a short period of time

By blending a special metal, and cured at room temperature by reacting with moisture in the atmosphere. Surface hardening 2 to 3 hours, full cure is about 48 hours.

GREETING

Global Suzuki "Make more impression always" is, we have to provide products

always to our customers in this philosophy.

Based on the experience of many years of automotive repair industry, product planning, development, looks like some production also deals with, at present, now we have customers and relations in a variety of industries. Also to be felt more and more, "Make more impression always" everyone and together the future, we will continue to challenge the staff. Please look forward to the Global Suzuki in the future.

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Main Business	Distributor of AXALTA Coating systems Planning the manufacture and sale of automotive refinishing supplies Planning production and sale of surface modification equipment

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