Anti-Static / Self-Cleaning Coating
Application Manual

- Super Glass Barrier : For Exterior Walls
- Clean Self Coat MC-T : For Exterior Window Panes
How to paint base material by

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■ Outer wall
  • Clean with high-pressure washing. After the surface is dry, 10cc of SUPER GLASS BARRIER per 1 square can apply to the outer wall. ※ After the thermal barrier coating apply, SUPER GLASS BARRIER can be coated at least 6 to 7 hours later. SUPER GLASS BARRIER cannot apply during the thermal barrier coating is volatilizing. Otherwise the coated surface of SUPER GLASS BARRIER is not stable and performance may not be demonstrated.

■ Concrete
  • Clean with high pressure washing, and apply the sealer. Then, 20cc of SUPER GLASS BARRIER per 1 square meter can apply to Concrete. Compare to flat surface substrate, more than 2 times amount of SUPER GLASS BARRIER is required when you apply to the unevenness surface. ※ It is necessary to apply a waterproof material, the sealer. Otherwise the concrete continue to absorb the SUPER GLASS BARRIER.
  (Note: Please test the sealer before the application. Some sealers don’t suit SUPER GLASS BARRIER.)

■ Aluminum Panel
  • After wipe and clean with Glass Cleaner, apply SUPER GLASS BARRIER.

■ Solar Panel
  • After wipe and clean with Glass Cleaner, apply Solar Self Maintenance Coat(HYPER GLASS BARRIER)

■ Glass
  • After wipe and clean (with Glass cleaner), apply Clean Self Coat MC-T.
**Solution Preparation**

- Super Glass Barrier : one-liquid type
- Super Clear Coat : one-liquid type
- Solar Self Maintenance Coat : two-liquid type
  (=Hyper Glass Barrier)  ※Please mix the liquid (At least 6 hours before application)

Example 4L:

① 4L Container (liquid A) = “SGB_SSMC(HGB) Base”

② 2L Container (liquid B) = “SSMC(HGB) Liquid”

**Formulation**
- Mixing ratio of liquid A and liquid B will be 1:1
- Please stirring gradually added a solution B to solution A.
  Example）In the case of 300g, liquid B(150g) add to liquid A(150g)
  Order to calculate in grams, the finished product will be 300ml or more by the specific gravity.

**Notes on Handling**
- After mixing, (at least 6 hours) until the end of the reaction, please do not use it.
- The mixed liquid has the slightly heat, but it will settle down in 30 minutes after mixing.
- Mixed liquid can keep for a week. It should storage at cool and dark place.
- Quality of each coating liquid is guaranteed for one year except mixed liquid.
Tools for application

Set items

- Glass Cleaner
- Cleaner Pad (Hard black sponge)
- Cleaner Buff
- The Main Agent
  - Super Glass Barrier
  - Clean Self Coat MC-T
  - Hyper Glass Barrier
- Microfiber Chamois

Tool to prepare yourself

- Spray bottle
- Kitchen paper
- Tray
- Masking membrane
- Squeegee

Spray tool to prepare yourself

- Spray gun (Gravity feed)
  Nozzle size: 0.8 ~ 1.4mm
- Regulator
- Air compressor
Grease remover

① Spray water to entire window.

② Cleaning the window by glass cleaner with spraying the water.
※ The place where a cleaner is repelling, please rub there more strongly

③ Wash off glass cleaner. Remove with a squeegee.

Tips for Grease remover
When the cleaner is repelling like a photograph, please rub with a pat. There are oils comes from the surface. When there are no water repel the glass, it is clean.
If the cleaning is not perfect, the coating can not adhere the glass surface.

Tips
If you do not remove the glass cleaner quickly, the surface will becomes harden. Then it becomes difficult to remove with a squeegee. In this case, spray the water to the surface and wash off by squeegee quickly.

④ Remove water with paper towels and a squeegee.
Preparation for Squeegee coating

◆ For SQUEEGEE

① Prepare the squeegee width of 35cm. (Approximately)
※ In this case, micro chamois will be about 36cm × 23cm

② Fold micro chamois in four, put a squeegee on it.
※ Micro chamois has two sides. One side has smoothly and another is fluffy. The Application side should be fluffy side.

◆ For Water Retention

① Spread the Masking Membrane on top of the tray, put a coating liquid.

② First, absorb 10 g of coating for the micro chamois and another 10g of coating for the application per one square meter. Evenly absorb the coating to the micro-chamois.
※ If there is unevenness absorption, The coating surface can not apply evenly. Please push the hardly.
Application
◆ Application with squeegee

① Make sure the squeegee should be parallel to apply.

② Slowly down to the bottom straight.
※ If the squeegee moves too fast, there might be uncoated part or unevenness coating.

③ Overlapped line should be as little as possible.

After Application
- After applying to Anti-static coating, the surface will dry quickly at room temperature. The full-curing dry surface will take 24 hours.
Preparation before application

◆ Adjustment of spray gun

① Pattern

② Attach a filter if oil or impurities are contained within the air compressor.

③ Air pressure: 0.2 ～ 0.3 Mpa

◆ Check the amount of coating applied and practice to improve the application

① Put water in the cup and check sprayed amount. Adjust it if necessary.

Note:
You see water droplets on the photo of the left side above. It was applied too much and has the risk of making a mottled appearance when it is dripped.
It is seen a bit cloudy when you spray right amount to the substrate.
It can’t form a strong coating film when sprayed amount is too small.
Preparation before application

② Position the spray gun 15 – 20cm from the spray surface.
※ Amount on ① needs to be adjusted with the distance from the substrate.

Note:
You need to fine-tune the distance by temperature, wind and temperature of the substrate. Methanol solvent and water in the liquid is evaporated before it reaches the substrate if the distance is too far so it can’t create a proper coating membrane.

◆ Spray order

It should be applied in parallel with little overlap, because of the largest amount is sprayed in the center of the ellipse pattern. ※ You need to fine-tune the speed of application by air pressure, amount and distance.
Removal Steps

① Same as the grease remover step, rub the surface by glass cleaner with spraying water. Then the coating surface will be removed. ※For confirmation, please repeat the grease remover step twice.

② Clean up and remove water. Then it is ready to apply the coating again.

◆ How to check the coating adhesion after application

Because of the transparent solution, please make sure the degree of adhesion in the following way. One minute later after the application, you could put a surface resistivity meter on the coating surface. Check antistatic function.

Example: Value of surface resistivity meter
Before application/11 power to 12 power $\Omega$ of 10
After application/ 8 power to 10 power $\Omega$ of 10

※ If humidity is high, you may see the better number like 1 or 2 square $\Omega$ compare to the original number. Water contents increase the number.
Substrate must be cool temperature (less than 30 deg.)
   It is better to slightly increase the amount of application at high temperature and at high temperature of the substrate. You can also put cool water over the substrate or chilling the coating liquid on ice for better finish.
   • Store the coating liquid at cool and dark place.
   ※ It can be stored in a refrigerator. You may carry into a cooler box and etc..

Important :
Cool substrate and the coating liquid in order to delaying the volatiles to promote densification of the coating film.

Note on the application
   • It volatiles very quickly under the direct sunlight. You may put a shade for blocking the sunlight in order to create better performance and finish.
   • Even if it is not under direct sunlight, wind accelerate evaporation. You may consider the requirement of windshield in some cases.
   ※ Temperature, direct sunlight and wind accelerate evaporation and make poor finish (mottled or uneven appearance)

Note :
The high temperature of the substrate rapidly volatilize methanol solvent and water in the coating liquid and makes holes on the coating surface which diffusely reflected light and makes the coating look white.

★ For the above reasons, it should not be applied particularly during the hot summer and in strong winds.