Diamond 9H
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Product Description

KubeBond Diamond 9H is a product of CHOOSE NanoTech's long experience in semiconductor industrial coating. It complies with industrial testing criteria. It contains a cubic ceramic molecular matrix structure that offers excellent resistance to scratches and chemicals.

The surface coated by KubeBond Diamond 9H adds a hard cubic ceramic layer, giving the best protection from damaging contaminants and harsh chemicals. And your car will stay clean for a much longer time!

Product Features

- ✓ Provides permanent transparent protection
- ✓ Can reach a maximum 9H Pencil Hardness
- ✓ Improved color saturation and high gloss finish
- ✓ Able to withstand a working temperature of up to 750°C
- ✓ Anti-graffiti and anti-scratch protection
- ✓ Resistance to chemical damage
- ✓ Strong protection against severe weather condition
- ✓ Prevents aging and yellowing caused by UV radiation
- ✓ Excellent hydrophobic effect
  (Water contact angle can reach 115° and above)
- ✓ Makes surface easy to clean

Suitable Application Surface

- ✓ Painted surfaces of car body

Packing Contents

- ✓ KubeBond Diamond 9H: 50ml
- ✓ Application Sponge: 1pc
- ✓ White Micro-Suede Cloth: 2pcs
- ✓ Sticker – KubeBond: 1pc
- ✓ Sticker – CHOOSE NanoTech Certification: 1pc
- ✓ Sticker – Warranty Card: 1pc

Working Instructions

Before Application:

1. ***Please work at an environment of 25°C (indoor), humidity 60% to 70%.***

   If the working environment is higher than 25°C, the curing process will be faster. It will shorten the time that is available for fixing the coating film.

   We recommend working on a small area first. Adjust your working pace by observing the curing condition. Also, we suggest you start working on an area that is less obvious and make sure all conditions are ideal before starting on a full-scale application project.

   If the working environment is lower than 20°C, the curing process will be slower. There will be plenty of time for you to fix the coating film.

   To make application easier, you can store Diamond 9H in the refrigerator before application. However, do not store Diamond 9H in the freezer or in an environment below 5°C.

2. ***Please work in an environment with enough light sources.***

   The coating will form a layer on the car surface. If the products are not applied evenly and not fixed at the right time, there will be obvious streaks on the surface after curing.

   Any flaws can only be removed by machine polishing and you need to redo the application. Therefore, please work in an environment with enough light sources to detect streaks.

   To prevent the flaws from being found after the project is done, we recommend checking the application outcomes using white light, yellow light, refracted light and LED handheld light in advance.

Equipment Required:

1. Application Sponge (in package)
2. White Micro-Suede Cloth (in package)

3. LED handheld light or other lighting devices
4. Infrared Curing Lamp: to allow the coated surface to reach 70°C and above

Application Steps

Pre-Application:

1. It is important that the surface be completely clean to strengthen adhesion and prolong the durability of the coat. Otherwise, there will be flaws and dirt stuck inside the coating layers.

   The following are the important steps in the cleaning process:

   - ✓ Clean the car body.
   - ✓ Buff the surface to a mirror finish.
   - ✓ Completely dry the surface.

2. After cleaning the surface, apply KubeBond Nano Primer to the paint surface. This pre-application process will strengthen the adhesion and tighten the paint particles. Also, it can prevent the product from penetrating into the gaps between paint particles, which will create uneven patches.

   - ✓ Load the right amount of KubeBond Nano-Primer to the polish plate.
   - ✓ Set the machine polisher to 800 rpm and polish the painted surface to a perfect state.
   - ✓ Let Nano Primer stay for the duration as stated below on the paint before starting Diamond 9H application.

   -Soft Paint (Japanese car): Let Nano Primer stay for about 24 hours before Diamond 9H application.
   -Hard Paint (German Car): Let Nano Primer stay for about 1 hour before Diamond 9H application.
   **KubeBond Nano-Primer is only for painted surfaces of cars.*

Application Steps:

1. Wrap the Application Sponge with White Micro-Suede Cloth as an applicator.
2. At the beginning of the application, pour Diamond 9H onto the applicator evenly until it absorbs the Diamond 9H. Do not pour the product directly onto the car body. It may cause uneven spotting on the surface due to the uneven amount of product absorbed by the surface.
   **If the amount on the applicator is not enough, it will be difficult to move the applicator and cause streaks.*

3. Apply product on car surface with the applicator.
   - ✓ Apply gently.
   - ✓ Divide the big area into small ones and work on one small area at a time. To have enough time to fix the film evenly before the surface dries, divide the panel into an even smaller area if the temperature is higher.
   - ✓ Applying in a consistent direction can reduce streaking and ensures that there are no missing parts, and that every area is applied evenly.
4. Levelling is a procedure that makes the film more even and reach the maximum coated thickness. The steps are as follow:
   - ✓ Wait for 1 minute for levelling when it is at 25°C, humidity 60% to 70%.
     Reduce waiting time if the temperature and humidity is higher.
   - ✓ Use new and dry microfiber cloth for the procedure.
   - ✓ Use the same piece and the same side of the microfiber cloth for the whole procedure. (The purpose of this step is to make Diamond 9H form an even layer on the car body. If you constantly change the sides of the cloth, it will cause the coated film to become increasingly thinner. It may even wipe the product down completely.)
   - ✓ To get the best even surface, make sure you do the process really gently.

Consumption

- ✓ 1ml of Diamond 9H can be applied on a 30cm by 30cm area.
- ✓ One 50ml product is enough for 2 layers of application on a medium sedan.

Multi-Layer

Multi-Layer Application Steps:

Follow the process as described previously for the single layer.

Before applying the next layer, wait for 30 to 40 minutes under 25°C, humidity 60% to 70%. Adjust the waiting time according to the environmental condition. If the temperature is higher, you need to shorten the waiting time.

The timing to apply the second layer is very crucial. If applied too early, it will not be able to increase the thickness since the first layer hasn't dried. If applied too late, the surface will be hydrophobic and Diamond 9H will remain on the surface like water droplets. You will not be able to apply multi-layer.

Recommended Layers and Desired Outcome:

Basic-Combination: 2 layers of Diamond 9H + 1 layer of NanoX

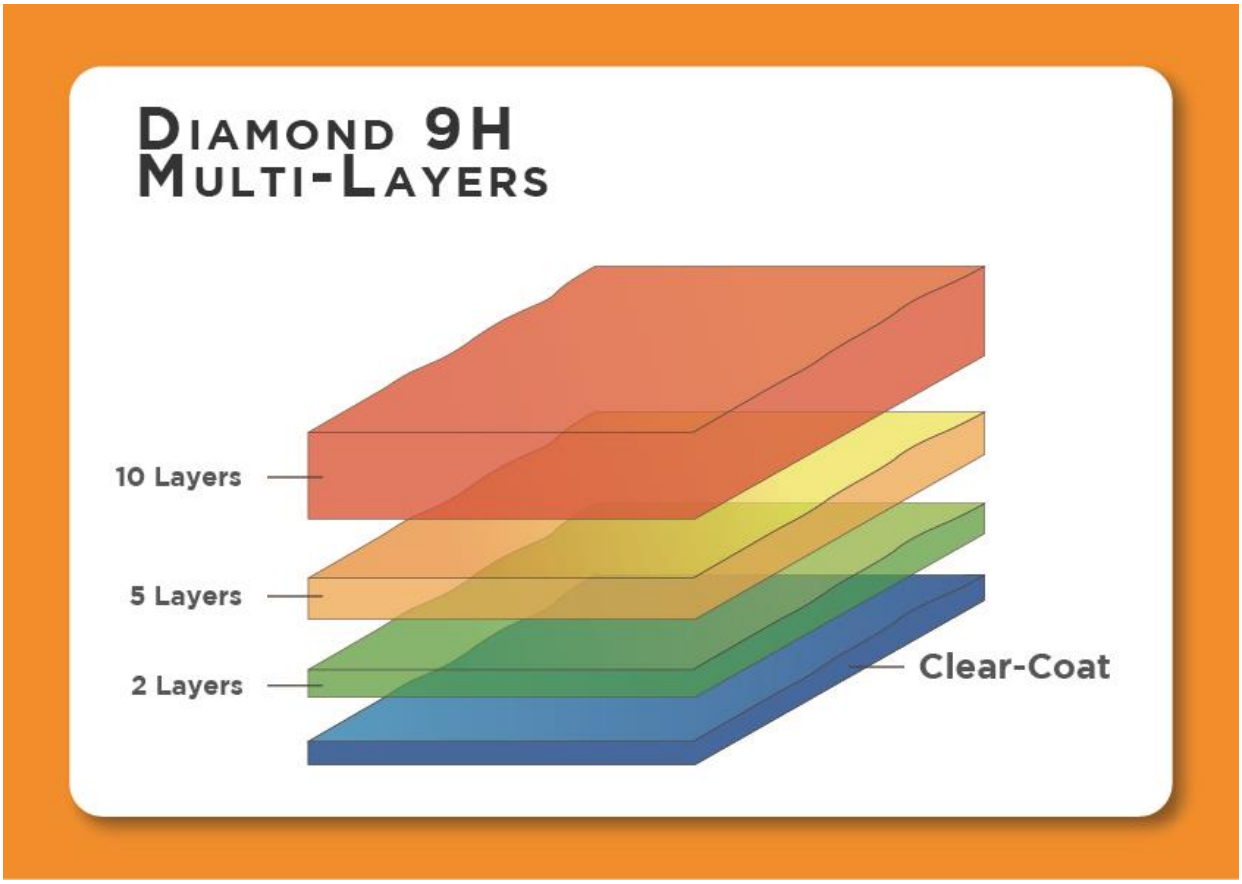
- ✓ Easy to clean.

Enhanced-Combination: 5 layers of Diamond 9H + 1 layer of NanoX

- ✓ Anti-graffiti.
- ✓ The thickness can reach 3 μm as certified by SGS Test.

Flagship-Combination: 10 layers of Diamond 9H + 1 layer of NanoX

- ✓ Anti-Scratch.
- ✓ The thickness can reach 6 μm as certified by SGS Test.



Combination of Diamond 9H and NanoX

In order to enhance the hydrophobic effect and prolong the durability of protection, it is recommended that you apply 1 layer of NanoX after applying all Diamond 9H layers.

When you use only Diamond 9H, the water contact angle is 115°. After applying NanoX, the water contact angle will be improved to 125°.

Application Steps of NanoX:

After finishing all Diamond 9H layers, you have a choice of two methods to apply the NanoX

- ✓ Wait at least 2 hours and then apply 1 layer of NanoX
- ✓ Heat Diamond 9H coated surface to 70°C or above for 30minutes. Then apply 1 layer of NanoX immediately.

Initial Heating is Done to Strengthen the Bonding of the Coated Film

********YOU MUST DO THE CURING PROCESS***

Equipment Required:

- ✓ Infrared Curing Lamp
- ✓ Infrared Thermometer

Temperature Requirement:

- ✓ Heat the coated surface to 70°C or above. (Please measure with an Infrared Thermometer.)

Time Requirement:

- ✓ The surface must be heated for at least 30 minutes

Full Curing Condition Needed

1. You need 72 hours to reach full curing.
2. Avoid contact with water in this 72 hours. If there are any water droplets on the surface, dry the

surface immediately.

3. Do not wash the car for the next 7 days after application. After 7 days, get the car to be returned to a KubeBond service center to do the first clean and to check that the coating is in the best condition.

Maintenance after Application

1. Do not wash the car with car wash machines.
2. Clean only with water and a neutral detergent.
3. Do not apply wax on the car body after coating treatment.
4. To get the best quality out of your coating, please get the car back to the service center every 2 to 3 months to do coat maintenance work.

For basic maintenance, spray Diamond Plus 2 to 3 times onto a damp cloth and add the product when needed. Apply evenly on the car body.

The consumption for a medium sedan is approximately 5 to 10 ml.

Do not touch the surface or let it come into contact with water within 8 hours of application. The Diamond Plus will create Nano-hair on the coated surface and restore hydrophobic effect after each maintenance.

Storage Method

1. Please store the products upright and keep them away from flames and flammable materials.
2. The suitable storage temperature is 5°C to 25°C.
3. Shelf life for unopened product is 5 years.
4. Seal the bottle tightly after opening. Otherwise, the product may start to cure when it comes into contact with air.

Warnings

1. Once Diamond 9H is dry, it cannot be removed with chemicals. It can only be removed by machine polishing.
2. Applicator and sponge could be used multiple times. After each use, please clean them with water or alcohol to prevent hardening.

3. This product is not harmful to skin. If product comes in contact with your skin, clean it off with water.
4. If the products come into contact with your eyes, please wash your eyes with large amounts of water. If discomfort remains, seek medical help immediately.
5. This product is not edible. Please store them away from children's reach.

Maintenance Process

1. If the car surface comes into contact with water within 72 hours after coating, wipe away the water immediately.
2. Slight Pollution:
   - ✓ Clean the car with water and a neutral detergent.
   - ✓ Dry the car body.
   - ✓ After the stain is removed, apply Diamond Plus to restore hydrophobic effect.
3. Medium Pollution:
   If the stain remains on the surface after washing, please follow this process:
   - ✓ Use Nano Primer to polish the stained part.
   - ✓ Apply 1 layer of Diamond 9H and then 1 layer of Nano-X.
4. Extreme Pollution:
   If the stain has severely damaged the surface, please follow the machine polish process:
   - ✓ Machine-polish the damaged part.
   - ✓ Clean the surface.
   - ✓ Apply Nano-Primer for the preparation process.
   - ✓ Redo all layers of Diamond 9H as before and 1 layer of Nano-X on the damaged part.

Frequently Asked Questions

1. Why does the car surface dirty easily after coating treatment?

After coating treatment, the surface will become perfectly hydrophobic. It makes the water droplet stay on the flat surface. When the water droplet dries up, it leaves behind the dirt. You will see this as dirty spots. However, it is very easy to clean the dirt using water and neutral detergent. On the other hand, if there was no coating treatment, the dirt will be evenly distributed on the car surface making it difficult to notice and clean off.

2. Is it possible for the car body to stay clean without washing after the coating treatment?

The car body still needs to be maintained and washed after a coating treatment. The coated area only makes the surface less likely to get dirty. Even when the surface gets dirty, it will be really easy to clean because of its excellent hydrophobic effect.

3. How scratch resistant is a 10-layer strong Diamond 9H coating?

10 layers of Diamond 9H can resist ordinary scratching. However, if a hard force is applied, it will still damage the car paint and panel parts. You will still need to bring your car to the repair center for professional help.

4. Why do we need to store the Diamond 9H in the refrigerator? Can it also be stored in the freezer?

Diamond 9H can be stored in the refrigerator at around 5°C to 8°C. Since the product is volatile, a lower temperature will reduce its volatility and thus give you more time for application.
Do not store the Diamond 9H in the freezer. Once the product is frozen it will not be useable.

5. Why is it necessary to apply KubeBond Nano-Primer before an application process?

KubeBond Nano-Primer is not a regular polish compound. It is a coupling agent, which will increase the adhesion strength of the product and make the paint particle stay tight.

It is able to prevent the product from penetrating into the gaps between the paint particles that will cause uneven patches to appear on the surface.

6. Is it possible to use Diamond 9H with Paint Protection Film?

You can use Diamond 9H with Paint Protection Film (PPF).

If you have not applied PPF on the car body, you have to apply 2 layers of Diamond 9H first before applying PPF. After this, apply 2 more layers of Diamond 9H. This will give the car a strong protection.

If you have already applied PPF, then apply 2 layers of Diamond 9H directly onto the PPF layer.
The advantage of using Diamond 9H prior to PPF is that the car paint is protected from any possible

damage from removing the PPF layer. Having Diamond 9H layer on the PPF layer will prolong the durability of PPF. Diamond 9H will slow down the yellowing and fading of the plastic material's color caused by high temperature.

7. How many layers of Diamond 9H should we apply to protect the cars?

We recommend the followings 3 different application projects to meet varying customers' desired outcomes:

Desired Outcome	Type of Project
Easy-to-clean effect	2 Layers Diamond 9H + 1 Layer NanoX
Protection from most pollutants and resistance to graffiti	5 Layers Diamond 9H + 1 Layer NanoX
Most secured protection, easy-to-clean effect, resistance to graffiti and protection against scratches	10 Layers Diamond 9H + 1 layer NanoX

8. Why do rainbow stripes appear on the surface after application?

If Diamond 9H is applied incorrectly, it will create an uneven layer. The uneven surface will make the light refract and cause the rainbow stripes to appear on the surface.

To prevent this, we recommend that you apply our products in a bright environment and check the finished area with lighting devices.

9. How do we check that the Diamond 9H coated film is still on the surface?

Test it with a marker pen. If the coated film is still on the surface, it will resist the graffiti. As long as you maintain the coated film by Diamond Plus, the car surface will recover its hydrophobic effect.

10. How did you test the coating thickness?

The thickness gauge measurement has a 1 micron error range. Since the coating thickness is extremely thin, you cannot use the regular thickness gauge to measure.

The thickness measurement is tested by SGS, a third party authorized organisation. SGS uses OM with a magnification of 1,000. It is a precision instrument used to provide objective data report. Please refer to SGS test report for more information.