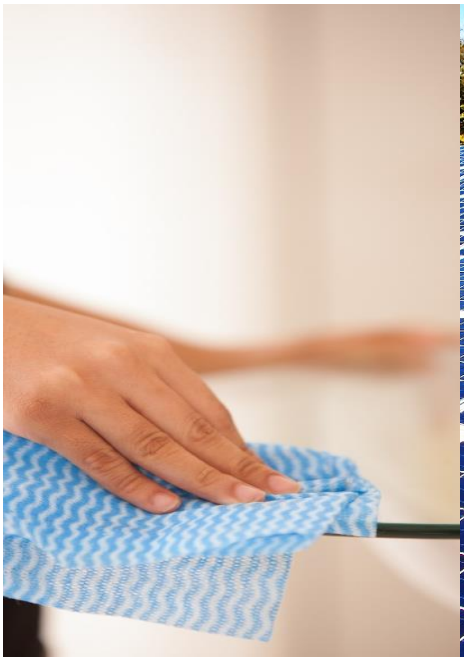
Water-Based Completely-Inorganic Coating

AD-Tech COAT

Instruction Manual



Nihon Keisou Co., Ltd.

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List of Effects by Base Material

Metallic	Aluminum	Sash, exterior	○	○	◎	Over 20 years	1-3 years	Organic coating applied on many aluminum surfaces.
	Brass	Handrail, interior wall	○	○	◎	Over 20 years	1-3 years	Same applies to titanium, magnesium, etc.
Ceramic	Pottery	Toilet, wash stand, bath tub	◎	○	◎	Over 20 years	Over 10 years	
	Enamel	Wash stand, bath tub	◎	○	◎	Over 20 years	Over 10 years	
	Tile (with glaze)	Exterior wall, interior wall	◎	○	◎	Over 20 years	Over 10 years	Tiles with gloss
	Tile (without glaze)	Exterior wall, interior wall	◎	○	◎	Over 10 years	5-10 years	Tiles with surface irregularity
Cement	Mortar Tile joint	Exterior wall, interior wall	○	–	–	5-10 years	5-10 years	Mold prevention
	Paint Concrete	Exterior wall, interior wall, tunnel wall	○	○	◎	5-10 years	5-10 years	Coating on concrete base is not allowed.
Organic	FRP	Bath tub, wash stand, vessel body	◎	○	◎	Over 10 years	5-10 years	
	Resin product	Wallpaper, polycarbonate (signboard), siding board, tent fabric	○	△	◎	Over 10 years	5-10 years	
	FF sheet	Signboard	○	△	◎	Over 10 years	5-10 years	
	Acrylic	Signboard, furniture	○	△	◎	Over 10 years	1-3 years	
	Plastic	Table, chair, furniture	○	△	◎	Over 10 years	1-3 years	
	Artificial marble	Table, wall, kitchen counter	○	△	◎	Over 10 years	1-3 years	
	Artificial leather	Sofa, chair, small article	○	△	◎	Over 10 years	1-3 years	
	Decola board	Table, shelf, furniture	○	△	◎	Over 10 years	1-3 years	
Other base materials	Wood	Column, exterior wall, interior wall	×	–	–	–	–	Application to wood with paint or lacquer is allowed.
	Paper	Sliding screen, paper-made wall paper	×	–	–	–	–	
	Paint surface	Exterior wall, interior wall, roof	◎	○	◎	Over 10 years	10-15 years	
	Vehicle coating	Automobile, train, vessel, aircraft	◎	○	◎	Over 10 years	3-6 years	
	Primer surface	Primer	◎	○	◎	Over 10 years	10-15 years	

* The above contents are reference indexes based on our tests and case examples, and do not guarantee any effects.

* Antifouling effect and durability vary depending on the usage environment or load applied.

* The values in coating durability are based on the results of durability tests.

* The values in the coating durability and reference durable years are not warranty periods.

* The values in the coating durability and reference durable years assume that there is no forced physical detachment or forced removal by strong acid or strong alkali.

List of Used Agents by Base Material

c	Tile (with glaze)	Exterior wall, interior wall	K-1006CP05	DC-2202UV73	With gloss
	Tile (without glaze)	Exterior wall, interior wall	K-1006KP50 or K-504PAK50	–	With surface irregularity
Cement	Mortar Tile joint	Exterior wall, interior wall (food industry)	C5406UV73	–	Washing and drying is necessary before application. Application with brush is recommended.
	Paint Concrete	Exterior wall, interior wall, tunnel wall	K1006KP50 or K-504PAK50	–	Washing and drying is necessary before application. Application with roller is recommended.
Organic	FRP	Bath tub, wash stand, vessel body	K-1006CP05	K-1006KP50	
	Resin product	Wallpaper, polycarbonate (signboard), siding board, tent fabric	K-504PAK50	–	
	FF sheet	Signboard	K-504PAK50	–	
	Acrylic	Signboard, furniture	K-504PAK50	–	
	Plastic	Table, chair, furniture	K-504PAK50	–	
	Artificial marble	Table, wall, kitchen counter	K-1006KP50 or K-504PAK50	–	
	Artificial leather	Sofa, chair, small article	K-504PAK50	–	
	Decola board	Table, shelf, furniture	K-504PAK50	–	
Other base materials	Wood	Column, exterior wall, interior wall	–	–	
	Paper	Sliding screen, paper-made wall paper	–	–	
	Coating surface	Exterior wall, interior wall, roof	K-1006KP50 or K-504PAK50	–	
	Vehicle coating surface	Automobile, train, vessel	DC2202KP10/K-1006 KP50/K-504PAK50	DC-2202UV73	Check case by case because materials on vehicle differ depending on the part.
	Primer surface	Primer	K-1006KP50 or K-504PAK50	–	

* By applying coating in 2 layers, improvement of hydrophilicity and durability can be expected. Whether to apply coating is up to you, but we recommend application in 2 layers.

* To plating type mirrors and interior wall surfaces, K-1006CP05 cannot be used.

* Concerning K-1006KP50 and K-504PAK50, you can select one that is easy to apply depending on the base material.

However, we recommend that you use K-1006KP50 on surface with large irregularity and K-504PAK50 on smooth surface.

* Use agents after carefully reading the description on usage of them. For a base material in a special shape, consult us in advance.

Introduction of Tools 1

Polisher

The product in the photograph above is PE-2010 from Ryobi.
Other products can also be used.

Orbital sander

The product in the photograph above is M931 from Makita.
Other products can also be used.

Wool buff

Select a wool buff with short hairs.
Wool buff with a larger diameter can be more efficiently used.
The product in the photograph above is wool buffs with a diameter of 18 cm.

Sponge pad for sander

The above sponge pad is a custom-made product.
For custom order, contact us.
Commercially-available pads can also be used.

Shampooer

Squeegee

Introduction of Tools 2

handheld sponge

The above sponge pad is a custom-made product.
For custom order, contact us.
Commercially-available pads can also be used.

Microfiber cloth

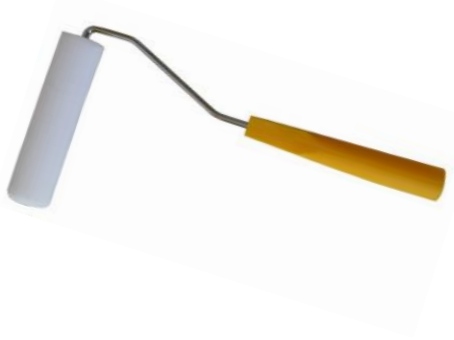
When an ordinary towel is used for cleaning, it is difficult to wipe off contamination and fiber attaches on the base material. We recommend that you use microfiber cloth.

Sponge

Non-woven sponge

Brush

Roller



Work Method <Window Glass>

Target base material: glass

Agent used: K-1006CP05
(DC-2202UV73)

Estimated required time: 10 min./m^2

Tools used: - Polisher (wool buff)
- Shampooer
- Squeegee
- Microfiber cloth

1. Preparation

Strongly shake the container of K-1006CP05, and after confirming that the polishing agent has been sufficiently distributed, take a proper amount of the agent on the buff.

2. Application of K-1006CP05

Apply K-1006CP05 while polishing the glass. While checking how the agent spreads, polish the glass until the agent settles. Move the polisher at the speed of about 30 cm in 10 seconds.

3. Removal of compound, check of hydrophilicity

After coating, you do not need to wait. Immediately pour water to wash away the compound, and check the hydrophilicity at the same time. At portions where water is repelled, repeat the steps (1) to (2).

4. Dewatering

After confirming that the whole surface has become hydrophilic, dewater by using the shampooer and squeegee.

5. Wiping with dry cloth

When the surface has dried after dewatering, compound that is left unwashed becomes visible. Wipe it off with a dry microfiber cloth.
* This step is unnecessary when compound is not left.

Finish of work

Application of overcoat

Used agent: K-504UV73

To improve the durability, apply overcoat as necessary.

1. Blending of agents
K-504UV73 is divided into the main agent and the hardening agent. Prepare an agent in which the main agent and hardening agent are blended in the ratio of 4:1.

2. Application (repeat 2 or more times)
Take a proper amount of K-504UV73 on the microfiber cloth that has been wetted and then strongly squeezed, and apply the agent. If the application area is large, apply the agent by dividing the area in units of 50-cm square block.

3. Curing
Take a curing period of about 10 minutes.

4. Wiping with dry cloth
After checking that there is no unevenness, positively wipe off the agent using the microfiber cloth.

When a solid object is attached to the glass surface, polishing the glass in that condition may produce scratches. Therefore, wash the glass in advance as necessary.

Portions around window frame are unlikely to become hydrophilic due to the influence of silicone oil.
Explain to that effect to your client in advance.

Work Method <Solar Panel>

Target base material: glass
Agent used: K-1006CP05
Estimated required time: 10 minutes/piece

Tools used: - Polisher (wool buff)
- Shampooer
- Squeegee
- Microfiber cloth

1. Preparation

Strongly shake the container of K-1006CP05, and after confirming that the polishing agent has been sufficiently distributed, take a proper amount of the agent on the buff.

2. Application of K-1006CP05

Apply K-1006CP05 while polishing the panel. While checking how the agent spreads, polish the panel until the agent settles. Move the polisher at the speed of about 30 cm in 10 seconds.

3. Removal of compound, check of hydrophilicity

After coating, you do not need to wait. Immediately pour water to wash away the compound, and check the hydrophilicity at the same time. At portions where water is repelled, repeat the steps (1) to (2).

4. Dewatering

After confirming that the whole surface has become hydrophilic, dewater by using the shampooer and squeegee.

5. Wiping with dry cloth

When the surface has dried after dewatering, compound that is left unwashed becomes visible. Wipe it off with a dry microfiber cloth.
* This step is unnecessary when compound is not left.

Finish of work

Notes on scaffold

To a scaffold board (preferably light one made of aluminum) of about 2 m in length that is sold at a home center or the like, install cut pieces of about 5-cm thick square bar using bolts.
On one side of the scaffold board, install iron plates that can hook by using bolts and nuts.
Place such scaffold boards on the panel frame and use a pair of them as a scaffold as shown in the above photograph.
Attaching pieces of rubber or sponge on the rear side allows you to work more safely.

When a solid object is attached to the glass surface, polishing the glass in that condition may produce scratches. Therefore, wash the glass in advance as necessary.

Depending on the site of work, water or electricity may need to be arranged. Be sure to check this point in advance.

Work Method <Stainless Steel>

Target base material: stainless steel

Agent used: K-1006CP05
(DC-2202UV73)

Estimated required time: 15 minutes/m^2

Tools used: - Orbital sander (when application area is large)
- Pad for orbital sander
- handheld sponge
- Microfiber cloth

1. Preparation (* for manual application)

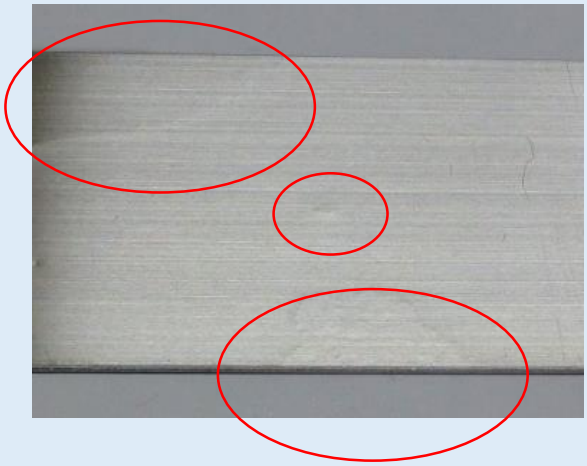
Strongly shake the container of K-1006CP05, and after confirming that the polishing agent has been sufficiently distributed, take a proper amount of the agent on the sponge.

2. Application of K-1006CP05

Apply K-1006CP05 while polishing the stainless steel. While checking how the agent spreads, polish the stainless steel until the agent settles. (On a hairline-processed surface, polish along the pattern.)

3. Removal of compound, check of hydrophilicity

Pour water to wash away the compound, and check the hydrophilicity at the same time. At portions where water is repelled, repeat the steps (1) to (2).



As water is repelled, polish again.

4. Wiping with dry cloth

By using the dry microfiber cloth, wipe off water on the surface while removing compound.

Finish of work

Application of overcoat

Used agent: DC-2202UV73

To improve the durability, apply overcoat as necessary.

1. Blending of agents
DC-2202UV73 is divided into the main agent and the hardening agent. Prepare an agent in which the main agent and hardening agent are blended in the ratio of 4:1.

2. Application (repeat 2 or more times)
Take a proper amount of DC-2202UV73 on the microfiber cloth that has been wetted and then strongly squeezed, and apply the agent. If the application area is large, apply the agent by dividing the area in units of 50-cm square block.

3. Curing
Take a curing period of about 10 minutes.

4. Wiping with dry cloth
After checking that there is no unevenness, positively wipe off the agent using the microfiber cloth.

On mirror-finish stainless steel, use K-504PAK50 because using other agent may produce scratches in the polishing process.

Wiping using the handheld sponge is likely to insufficiently remove the dirt on the base. Therefore, we recommend that you use a tool such as orbital sander.

Work Method <Stainless Steel Sink>

Target base material: stainless steel

Agent used: K-1006CP05
(C-5406UV73)

Estimated required time: 20 minutes/m^2

Tools used: - Orbital sander (when application area is large)
- Pad for orbital sander
- handheld sponge
- Microfiber cloth

1. Preparation (* for manual application)

Strongly shake the container of K-1006CP05, and after confirming that the polishing agent has been sufficiently distributed, take a proper amount of the agent on the sponge.

2. Application of K-1006CP05

Apply K-1006CP05 while polishing the sink.
While checking how the agent spreads, polish the sink until the agent settles.

3. Removal of compound, check of hydrophilicity

Pour water to wash away the compound, and check the hydrophilicity at the same time. At portions where water is repelled, repeat the steps (1) to (2).

4. Wiping with dry cloth

By using the dry microfiber cloth, wipe off water on the surface while removing compound.

Finish of work

Application of overcoat

Used agent: C-5406UV73

To improve the durability, apply overcoat as necessary.

1. Blending of agents
C-5406UV73 is divided into the main agent and the hardening agent. Prepare an agent in which the main agent and hardening agent are blended in the ratio of 4:1.

2. Application (repeat 2 or more times)
Take a proper amount of C-5406UV73 on the microfiber cloth that has been wetted and then strongly squeezed, and apply the agent. If the application area is large, apply the agent by dividing the area in units of 50-cm square block.

3. Curing
Take a curing period of about 10 minutes.

4. Wiping with dry cloth
After checking that there is no unevenness, positively wipe off the agent using the microfiber cloth.

C-5406UV73 has a hardening property to improve durability, and therefore unevenness may occur. Apply C-5406UV73 evenly.

In a sink that has been used for a long time, oil content has penetrated in the scratches on the sink surface. Therefore, it is difficult to put such a sink in a completely hydrophilic condition.

Work Method <Toilet>

Target base material: pottery

Agent used: K-1006CP05
(DC-2202UV73)

Estimated required time: 15 minutes/m^2

Tools used: - handheld sponge
- Nonwoven sponge
- Microfiber cloth

1. Preparation

Strongly shake the container of K-1006CP05, and after confirming that the polishing agent has been sufficiently distributed, take a proper amount of the agent on the sponge.

2. Application of K-1006CP05

Apply K-1006CP05 while polishing the toilet bowl. While checking how the agent spreads, polish the toilet bowl until the agent settles.

3. Removal of compound, check of hydrophilicity

Pour water to wash away the compound, and check the hydrophilicity at the same time. At portions where water is repelled, repeat the steps (1) to (2).

4. Wiping with dry cloth

By using the dry microfiber cloth, wipe off water on the surface while removing compound.
* This step is unnecessary when compound is not left.

Finish of work

Application of overcoat

Used agent: DC-2202UV73

To improve the durability, apply overcoat as necessary.

1. Blending of agents
DC-2202UV73 is divided into the main agent and the hardening agent. Prepare an agent in which the main agent and hardening agent are blended in the ratio of 4:1.

2. Application (repeat 2 or more times)
Take a proper amount of DC-2202UV73 on the microfiber cloth that has been wetted and then strongly squeezed, and apply the agent. If the application area is large, apply the agent by dividing the area in units of 50-cm square block.

3. Curing
Take a curing period of about 10 minutes.

4. Wiping with dry cloth
After checking that there is no unevenness, positively wipe off the agent using the microfiber cloth.

Many new toilet bowls are already coated, and expected effect may not be sufficiently achieved.

When working on an installed flushing toilet bowl, flushing a bucket of water into the toilet bowl at once can reduce the water amount in it.

Work Method <Pottery Wash Basin>

Target base material: pottery

Agent used: K-1006CP05
(DC-2202UV73)

Estimated required time: 15 minutes/m^2

Tools used: - handheld sponge
- Nonwoven sponge
- Microfiber cloth

1. Preparation

Strongly shake the container of K-1006CP05, and after confirming that the polishing agent has been sufficiently distributed, take a proper amount of the agent on the sponge.

2. Application of K-1006CP05

Apply K-1006CP05 while polishing the pottery wash basin.
While checking how the agent spreads, polish the pottery wash basin until the agent settles.

3. Removal of compound, check of hydrophilicity

Pour water to wash away the compound, and check the hydrophilicity at the same time. At portions where water is repelled, repeat the steps (1) to (2).

As water is repelled, polish again.

4. Wiping with dry cloth

By using the dry microfiber cloth, wipe off water on the surface while removing compound.
* This step is unnecessary when compound is not left.

Finish of work

Application of overcoat

Used agent: DC-2202UV73

To improve the durability, apply overcoat as necessary.

1. Blending of agents
DC-2202UV73 is divided into the main agent and the hardening agent. Prepare an agent in which the main agent and hardening agent are blended in the ratio of 4:1.

2. Application (repeat 2 or more times)
Take a proper amount of DC-2202UV73 on the microfiber cloth that has been wetted and then strongly squeezed, and apply the agent. If the application area is large, apply the agent by dividing the area in units of 50-cm square block.

3. Curing
Take a curing period of about 10 minutes.

4. Wiping with dry cloth
After checking that there is no unevenness, positively wipe off the agent using the microfiber cloth.

For how to work on washing basin made of FRP, see the work method on FRP bath tub on the next page as reference.

As the pottery water basin has many curved portions, work needs to be manually carried out by using a handheld sponge or a nonwoven sponge. At portions where mechanical tools cannot be used, it is difficult to remove dirt and therefore cleaning takes time.

Work Method <Bath tub>

Target base material: FRP

Agent used: K-1006CP05

K-1006KP50

Estimated required time: 30 minutes

Tools used: - Orbital sander

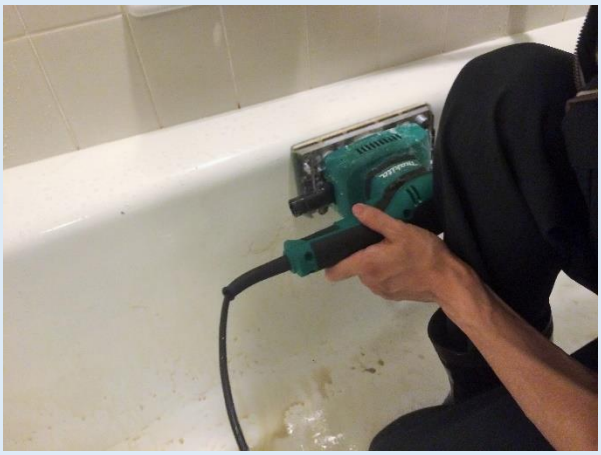
- Pad for orbital sander
- handheld sponge
- Microfiber cloth

1. Preparation

Strongly shake the container of K-1006CP05, and after confirming that the polishing agent has been sufficiently distributed, take a proper amount of the agent on the pad.

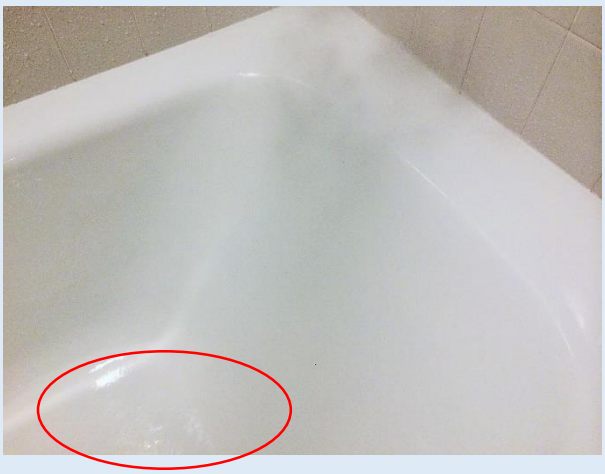
2. Application of K-1006CP05

Apply K-1006CP05 while polishing the bath tub. While checking how the agent spreads, polish the bath tub until the agent settles.



3. Removal of compound, check of hydrophilicity

Pour water to wash away the compound, and check the hydrophilicity at the same time. At portions where water is repelled, repeat the steps (1) to (2).



As water is repelled, polish again.

4. Wiping with dry cloth

By using the dry microfiber cloth, wipe off water on the surface while removing compound.

5. Application of K-1006KP50

Using the microfiber cloth that has been wetted and then strongly squeezed, apply and spread 1006KP50.

6. Wiping with dry cloth

If you are concerned about gel grains, wipe them off by using the microfiber cloth or the like.

Finish of work

Contamination inside the bath tub persistently remains even though it is invisible. Therefore, polishing must be conducted by using a tool.

After applying K-1006KP50, it is also possible to further apply DC-2202UV73 on it. This further improves the durability.

Work Method <Tile for Interior Finish>

Target base material: tile (with glaze)

Agent used: K-1006CP05
(DC-2202UV73)

Estimated required time: 10 minutes/m^2

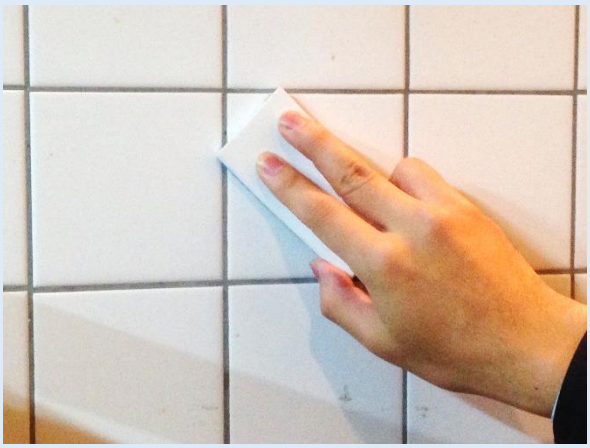
Tools used: - Polisher (wool buff)
- handheld sponge
- Microfiber cloth

1. Preparation (* for manual application)

Strongly shake the container of K-1006CP05, and after confirming that the polishing agent has been sufficiently distributed, take a proper amount of the agent on the sponge.

2. Application of K-1006CP05

Apply K-1006CP05 while polishing the tiles. While checking how the agent spreads, polish the tiles until the agent settles.



3. Removal of compound, check of hydrophilicity

Pour water to wash away the compound, and check the hydrophilicity at the same time. At portions where water is repelled, repeat the steps (1) to (2).

4. Wiping with dry cloth

By using the dry microfiber cloth, wipe off water on the surface while removing compound.

Finish of work

Application of overcoat

Used agent: DC-2202UV73

To improve the durability, apply overcoat as necessary.

1. Blending of agents
DC-2202UV73 is divided into the main agent and the hardening agent. Prepare an agent in which the main agent and hardening agent are blended in the ratio of 4:1.

2. Application (repeat 2 or more times)
Take a proper amount of DC-2202UV73 on the microfiber cloth that has been wetted and then strongly squeezed, and apply the agent. If the application area is large, apply the agent by dividing the area in units of 50-cm square block.

3. Curing
Take a curing period of about 10 minutes.

4. Wiping with dry cloth
After checking that there is no unevenness, positively wipe off the agent using the microfiber cloth.

This work method is for tiles coated with glaze (with glossy appearance). For tiles without glaze, different agent is used. Check the type of the tiles before conducting work.

When the application area is large, we recommend that you use the polisher.

For work on tile joints, see the next page.

Work Method <Tile for Exterior Finish>

Target base material: tile (without glaze)

Agent used: K-1006CP05
or K-504PAK50

Estimated required time: 10 minutes/m^2

Tools used: - Sponge for manual application
- Roller
- Wiper with sponge
- Microfiber cloth

1. Cleaning of base

Conduct high-pressure washing to remove contamination on the wall surface.
In a place where high-pressure washing cannot be conducted, you may wipe the wall surface with water.

2. Application of K-1006KP50

Apply and spread K-1006KP50 or K-504PAK50 by using the roller or the wiper with sponge. It is easier to spread the agent by applying the agent on the wall surface, spraying water at it, and spread it with the roller.

3. Wiping with dry cloth

If you are concerned about gel grains, wipe them off by using the microfiber cloth or the like.

Finish of work

Work method on tile joints

Used agent: C-5406UV73

On mortar portions at joints of tiles both for interior finish and exterior finish, use C-5406UV73 for preventing mold.

1. Blending of agents
C-5406UV73 is divided into the main agent and the hardening agent. Prepare an agent in which the main agent and hardening agent are blended in the ratio of 4:1.

2. Application
By using a small brush, apply C-5406UV73 to the

The target material is mortar only. This agent does not have any effect on caulking material.

As C-5406UV73 has a hardening property, when it attaches on an object other than the target, positively wipe it off.

Gel type agent can be applied to both tiles with glaze and tiles without glaze. However, when applying it to tiles with glaze, apply it while “polishing” with the sponge or the microfiber cloth.

In locations where you are not concerned about gel grains (e.g. inside tunnel), you can leave gel grains unwiped.

Work Method <Exterior Wall>

Target base material: painted concrete

Agent used: K-1006KP50
or K-504PAK50

Estimated required time: 10 minutes/m2

Tools used: - Roller
- Wiper with sponge
- Microfiber cloth

1. Cleaning of base

Conduct high-pressure washing or the like to remove contamination on the wall surface.

2. Application of K-1006KP50

Apply and spread K-1006KP50 or K-504PAK50 by using the roller or the wiper with sponge. It is easier to spread the agent by applying the agent on the wall surface, spraying water at it, and spread it with the roller.

3. Wiping with dry cloth

If you are concerned about gel grains, wipe them off by using the microfiber cloth or the like.

Finish of work

Work method on mortar joints

Used agent: C-5406UV73

On mortar joint portions, use C-5406UV73 for preventing mold.

1. Blending of agents
C-5406UV73 is divided into the main agent and the hardening agent. Prepare an agent in which the main agent and hardening agent are blended in the ratio of 4:1.

2. Application
By using a small brush, apply C-5406UV73 to the joint portions.

The target material is mortar only. This agent does not have any effect on caulking material.

As C-5406UV73 has a hardening property, when it attaches on an object other than the target, positively wipe it off.

This work cannot be conducted by spraying. Apply the agent like positively plastering it.

In locations where you are not concerned about gel grains (e.g. inside tunnel), you can leave gel grains unwiped.

Work Method <Wall Paper>

Target base material: resin product

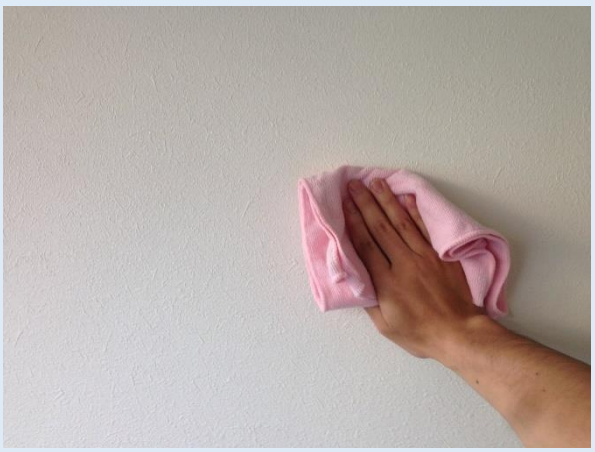
Tools used: - Microfiber cloth

Agent used: K-504PAK50

Estimated required time: 5 minutes/m^2

1. Cleaning of base

If the contamination is heavy, conduct wiping with water or the like to remove contamination on the wall surface.



2. Preparation for application

Take a small amount of K-504PAK50 on the microfiber cloth that has been wetted and then strongly squeezed.

3. Application of K-504PAK50

While paying attention not to damage the wall paper, slowly apply the agent. Apply the agent while paying attention to positively fit it in the surface irregularities.

4. Wiping with dry cloth

If gel grains are left on the wall surface, wipe them off by using the microfiber cloth.

Finish of work

Onto a wall surface with greater irregularities, it may be difficult to apply agent. Thoroughly check in advance whether the agent can be applied.

The agent can be efficiently spread by first taking the agent on the microfiber cloth, then applying it at locations at certain intervals, and finally spreading the agent at those locations.

Work Method <Signboard>

Target base material: resin product

Agent used: K-504PAK50

Estimated required time: 10 minutes/m^2

Tools used: - Microfiber cloth
- Shampooer

1. Cleaning of base

Conduct high pressure washing or wiping with water to remove contamination on the signboard. Against ingrained and persistent stain such as rain streaks, use a dedicated detergent or the like.

2. Preparation for application

Take a small amount of K-504PAK50 on the microfiber cloth that has been wetted and then strongly squeezed.

3. Application of K-504PAK50

Apply K-504PAK50 by using the microfiber cloth that has been wetted and then strongly squeezed.

4. Wiping with dry cloth

If you are concerned about gel grains, wipe them off by using the microfiber cloth or the like.

Finish of work

Signboards are made of various materials including acrylic, film, FF, and sheets. In particular, as film type signboards are subject to scratches, carefully work on them.

The agent can be efficiently spread by first taking the agent on the microfiber cloth, then applying it at locations at certain intervals, and finally spreading the agent at those locations.

Work Method <Vehicle>

Target base material: painted surface of vehicle

Agent used: K-504PAK50
DC-2202UV73

Tools used: - Polisher (wool buff)
- Microfiber cloth

Estimated required time: approx. 2 hours/vehicle (coating takes about 30 minutes)

1. Processing of base

(1) Vehicle washing
Remove sand, dust and contamination. Then, wash them away with water, and wipe off water by using the microfiber cloth.

(2) Removal of iron powder
Remove the iron powder attached on the body by using iron powder removal agent or dedicated clay.

(3) Polishing
By using the fine grain compound and polisher, polish the body.

(4) Degreasing
By using degreasing agent, remove the oil of the compound.

2. Application of K-504PAK50

Take a proper amount of K-504PAK50 on the microfiber cloth that has been wetted and then strongly squeezed, and apply the agent. If the application area is large, apply the agent by dividing the area in units of 50-cm square block. Then, wipe off the agent with a dry cloth.

3. Application of DC-2202UV73

(1) Blending of agents
DC-2202UV73 is divided into the main agent and the hardening agent. Prepare an agent in which the main agent and hardening agent are blended in the ratio of 4:1.

(2) Application (repeat 2 or more times)
Take a proper amount of DC-2202UV73 on the microfiber cloth that has been wetted and then strongly squeezed, and apply the agent. If the application area is large, apply the agent by dividing the area in units of 50-cm square block.

(3) Curing
Cure for about 10 minutes.

(4) Wiping with dry cloth
After checking that there is no unevenness, positively wipe off the agent using the microfiber cloth. If a buff type polisher is available, using it enables more quick and uniform finish.

Finish of work

The work method stated above is a method for ordinary vehicle body. For special shape (FF sheet, stainless steel, etc.) or special paint (self-healing paint, etc.), separately check the corresponding method.

When you conduct the step 1-(3) in several sub steps, it is effective to apply K-504PAK50 immediately before the final polishing.
<Example> Polishing 1 -> polishing 2 -> degreasing -> **gel** -> polishing 3 ->**overcoat** -> polishing with buff

Introduction of Delivery Containers

Main agent types

Liquid type

Compound-contained type

Gel type

1kg　Liquid container

Target agent
K-1006V

500g　Liquid container

Target agent
K-1006CP05

1kg　Gel container

Target agent
K-1006KP50 / K-504PAK50

800g+200g　2 liquid type

Target agent
DC-2202UV73 / K-504UV73 / C-5406UV73

20kg　Liquid container

We will delivery in a large container
according to your request.

Maintenance

AD-Tech COAT not only reduces attachment of organic contamination due to its completely inorganic property, but also exhibits excellent antifouling property due to its self-cleaning effect and antistatic effect. Moreover, conducting appropriate maintenance allows the product to exhibit the utmost antifouling effect and remain in a clean condition for a long time. For this purpose, please refer to this page.

Precautions to observe during care

Rubbing with a hard object gives scratches on the base material. Once scratches are generated, AD-Tech COAT will also be detached. Therefore, during cleaning, do not use a metallic brush or polishing pad, but use a soft sponge, brush or towel.
Do not use strong acid or strong alkali agent. Doing so may detach the coating along with the base material.

Work carefully not to fall from a stepladder and not to allow the agent to enter your eyes.

Care in outdoor condition

Remove contamination attached on a place where rain does not reach or persistent contamination that rain cannot remove by lightly washing it away with water. If you cannot wash away contamination with water, clean it by using a neutral detergent. After cleaning, wash away the detergent by sufficiently pouring water over it. Avoid conducting cleaning on a day when dust blows. Otherwise, dust may attach on the base material before water is dried up.

Care in indoor condition

Remove contamination on a location where water does not usually reach by wiping it off with water. If the contamination cannot be removed by wiping with water, use a neutral detergent. After cleaning, positively wipe off the detergent with water and then dry cloth.

Care of glass and mirror

One of the causes of water stain on glass and mirror is chlorine contained in tap water. As chlorine component is combined with the base material, persistent scale-like stain is formed. When washing glass or mirror using tap water, attachment of chlorine that turns into stain can be further prevented by dewatering it.

Care against mold and alga

Mold and alga are likely to grow in such locations where ventilation is bad and water and contamination tend to accumulate, and they can possibly grow anywhere. Once they grow, they gradually spread. Therefore, once you find mold or alga, immediately remove it.
When you can find mold or alga at early stage, wipe it off with water by, for example, rubbing it with a sponge while pouring water. When you cannot remove mold or alga, it is necessary to use mold-removing agent or dedicated detergent. In this case, follow the instruction manual for the mold-removing agent or dedicated detergent during its use.

Precautions on Use

Explanation of important matters

AD-Tech COAT is not a product that completely prevents attachment of contamination. Before purchasing this product, thoroughly check the expected effects by material.

In application work, there are base materials which attention needs to be paid to or effect cannot be expected on. Please read the following explanation.

Base materials that this product is not applicable to

Among base materials applied with special processing on surface (example: anti-fog processing), this product cannot be applied to some base materials. Thoroughly check those materials in advance.
Do not use this product on floor as it may become slippery due to hydrophilicity.

At locations where the coating surface may come into contact with person's mouth (example: eating utensil), do not apply this product.

At locations directly exposed to fire (example: grill in gas cooker), even when coating film is left, it does not exhibit effect due to hydrophilicity and therefore antifouling effect cannot be expected.

Also on other base materials than above, application work may not be possible or effect may not be obtained depending on the material, shape and environment. Carefully read the explanations and precautions on base material, and consult each manufacturer for availability.

Storage

Tightly close the lid of the container and keep this product in a cold and dark place not exposed to direct sunlight.
The product may partially appear opaque or have floated or sunk fine particles, but they will be dissipated by strongly shaking the container.

Warranty

The contents of this instruction manual are based on our tests and case examples, and do not guarantee the effect of the product.

We will deal with any problem (example: discoloration or deterioration of base material) caused by AD-Tech COAT according to the Product Liability Act.

We will not warrant the product against any trouble in application work.

Q&A Frequently Asked Questions

Q&A on AD-Tech COAT

Freequently asked questions		
Q 1	Can the product address all kinds of contamination?	
	A	Sufficient effect cannot be exerted on efflorescence oozing from concrete, rust flowing from steel frame or excessive oil stain. Usually, the causes of contamination are exhaust gas, dirt and dust, and this product exerts strong effect on those substances.
Q 2	Is it possible to apply coating to any kinds of object?	
	A	It is not possible to apply coating on objects that water penetrates such as paper, cloth and green wood.
Q 3	Is this product effective on any location?	
	A	This product is effective anywhere with humidity of 40% or higher. However, self-cleaning effect is exerted only in places exposed to rain.
Q 4	Is this product effective even in a location not exposed to rain?	
	A	This product makes contamination such as dirt, dust and exhaust gas unlikely to attach due to its antistatic function. Also, even when they attach, the surface condition is such that they can be easily wiped off.
Q 5	How long is the durability of the coating?	
	A	The durability differs depending on the target base material and usage environment, but we have confirmed the following weather resistance. [In SUV test, no deterioration in 1000 hours (when converted into actual years, no deterioration in 20 years)]
Q 6	Do you have any product warranty system?	
	A	In case a problem is caused by AD-Tech COAT, we will warrant the product according to the PL insurance.
Q 7	How should I perform maintenance after coating?	
	A	Clean the surface with water only or with neutral detergent. For details, see the separate sheet “Notes on Maintenance.”
Q 8	What is the difference from photocatalyst?	
	A	Photocatalyst mainly consists of “titanium oxide” and “organic solvent,” and it has hydrophilicity and antistatic property, and can decompose contamination in reaction to ultraviolet ray and purify air. AD-Tech COAT consists of “silica” and “water,” and has hydrophilicity and antistatic property. As the product does not require light and its solvent is water, it is safe and easy to handle. As the product does not contain any organic substance, it does not discolor or deteriorate.
Q 9	What is the difference from conventional glass coating?	
	A	AD-Tech COAT does not discolor or deteriorate due to absence of organic substance in it, and has a flexibility to follow the expansion and contraction of base material. The coating has little gloss since it suppress reflection of light, but brings color depth and does not change the innate color tone of the base material.

Q&A Question on Effects other than Antifouling Effect

Q 11	Does the product have any antibacterial function?	
	A	No.
Q 12	Does the product serve as countermeasure against odor?	
	A	The product has an indirect effect against odor because it makes contamination causing odor unlikely to attach, but it does not completely suppress generation of odor.
Q 13	Does the product serve as measure against mold?	
	A	The product has an indirect effect against mold because it makes contamination serving as nutrition for mold unlikely to attach, but it does not completely suppress generation of mold.
Q 14	Does this product serve as defroster for glass and mirror?	
	A	Pouring water on the coating produces water film, serving as defroster. However, this effect can be exerted only when there is no contamination on the coating surface. Perform maintenance by, for example, wash away contamination with water.
Q 15	Does the product make the base material unlikely to be damaged?	
	A	This product does not have such an effect because the film is extremely thin and does not reinforce the strength of the base material.
Q 16	Can this product remove scale-like contamination on glass and mirror?	
	A	The abrasive grains of AD-Tech COAT are ultrafine particles and do not damage base material. Therefore, it is not possible to remove persistent scale-like contamination that has combined with the base material. To remove them, dedicated agent or highly hard polishing pad needs to be used. After applying AD-Tech COAT, scale-like contamination is unlikely to attach.

Q&A Questions on Application Work and Storage

Q 17	Is it necessary to wait after application work?	
	A	It is not necessary. When time has passed, the compound hardens and it becomes difficult to wash away it. Therefore, immediately after application work, remove the compound by pouring water. Hardening time is necessary only when overcoat agent is used. In this case, wait for about 10 minutes.
Q 18	Can anyone handle the product?	
	A	Yes. No special lecture or certification is required.
Q 19	Is any special tool or skill required?	
	A	The product can be manually applied by using a thin sponge, but it takes time to remove contamination on the base. We recommend that you use a cleaning machine such as polisher and orbital sander. No special skill is required. All you need to do is positively polish.
Q 20	Does any unevenness occur?	
	A	As the film is as thin as 50 nanometer, unevenness will not occur. However, when overcoat is used, the film becomes thick and unevenness may possibly occur.
Q 21	Does basic material discolor or deteriorate in some cases?	
	A	Discoloration or deterioration of base material is not caused by AD-Tech COAT because it does not contain any organic substance.
Q 22	Is the product affected by weather?	
	A	Application work is not allowed only at sub-zero temperature. It is possible to work on sunny or rainy day, but during work in the burning sun, coating extremely rapidly dries and unevenness is likely to occur. Therefore, avoid working in the burning sun, and work in the shade.
Q 23	Is there any problem with working in a sealed space?	
	A	There is no problem because the product does not contain any volatile substance. It is also not necessary to wear a mask or to ventilate.
Q 24	Is it possible to paint after coating?	
	A	It is possible in principle, but please consult the manufacture of the paint in use.
Q 25	Is it possible to use this product in combination with other coating agent?	
	A	If you use AD-Tech COAT as an undercoating agent, it cannot exert its effect. Therefore, there is no reason to use it in combination. If you use AD-Tech COAT as an overcoating agent, it can exert its effect. However, as it is difficult to form film depending on the base material, consult us in advance.
Q 26	How much is the application work cost?	
	A	It varies depending on the whole work volume, necessity of scaffold, etc. Consult us in advance.
Q 27	How should I store the agent?	
	A	Tightly close the lid of the container and keep this product in a cold and dark place not exposed to direct sunlight.
Q 28	Is there any use-by date of the agent?	
	A	The warranty period is 1 year. Store the agent in the abovementioned manner and use it as soon as possible once opened.

Q&A Other Questions

Q 29	What is hydrophilicity?	
	A	The contact angle of base material with water of 50 degrees or less is called “hydrophilic” and the angle of 90 degrees or more is called “hydrofuge.” When a base material is hydrophilic, water penetrates it and water film is formed. On the other hand, when a base material is hydrofuge, it repels water and water balls are formed. After applying AD-Tech COAT, the surface turns into a “superhydrophilic” state with 10 degrees or less. By reinforcing hydrophilic property, bonding force between water and base material becomes stronger than that between contamination and base material, generating the self-cleaning effect by which contamination can be cleaned with water. In addition, as large water balls as in water repellent state are unlikely to be formed, water stain and ion deposit can be prevented.
Q 30	How large is the polishing grain?	
	A	The size of the polishing grain is about 2 micrometer. The polishing grains are fine particles of silica and alumina and are harmless. And they do not damage base material.
Q 31	Is the product resistant to heat?	
	A	The heat-resistant temperature of the coating film is 1300°C, so the film is highly heat-resistant. However, in an environment where water
Q 32	Is the product resistant to friction?	
	A	Through film sliding/friction test, we have confirmed that the product is highly friction-resistant. Even by brushing by a train car washing machine, the coating does not come off.
Q 33	Is the product made in Japan?	
	A	Yes.
Q 34	What is silica?	
	A	It is SiO2. It is a main component of glass, and constitutes sand, rock and soil. It is the second affluent substance on the earth, and is also referred to as component constituting the earth. It is also contained in cosmetics and beverages, and is an extremely safe and harmless substance.
Q 35	Why does the agent have many model numbers?	
	A	We offer variety of products so that more effective one can be used according to the shape of the base material. The basic components of all products are “silica” and “water.” If you are not sure about the proper agent, consult us in advance.

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