

Perfect Cool A Instruction Manual [Arabian Peninsula Edition]

PRODUCT DESCRIPTION

Type

Perfect Cool A is a paint for Solar Heat Blocking Pavement Coating for pedestrian roads that uses an emulsion-type acrylic resin. It has excellent workability and can be applied to pedestrian roads, such as sidewalks, garden roads, and squares, as well as to bicycle paths.

Features and benefits

- The solar heat blocking coat layer prevents heat accumulation in pavement by reflecting highly near-infrared rays, which are easily converted to heat in solar radiation, and suppresses the temperature rise on the road surface.
- The standard colors of nine colors allow the road surface to be colored.

Recommended Use

Perfect Cool A is effective not only for heat environment measures in cities such as heat island countermeasures, but also for reducing pedestrian discomfort caused by heat on roads close to home in summer.

- Sidewalks, pedestrian aisles, garden roads
- Parks and plazas
- Bicycle path

***Note) Application to carriageways is not recommended.**

Definition

- Paint : Product of Perfect Cool A
- Paint Mixture : Perfect Cool A which is mixed with silica sand and/or water

Precautions for Paint Handling

- Before opening, shake the can and stir well. After opening the package, stir the contents thoroughly with a stirrer so that the contents are uniform.
- To adjust the viscosity according to the application conditions, the paint can be diluted by adding 5-10% fresh water to the weight of Perfect Cool A. The amount of application shown in the application flow does not contain this moisture. Apply and spray it with an extra moisture. The temperature of the water to be added should be between 5°C and 40°C. Be careful not to add more than 10% of water, which may cause insufficient covering force or defective finish.
- Apply the required amount according to the condition of the road surface, and do not apply thicker than required.
- Do not install the product when the ambient temperature is 5°C or less, or the humidity is 85% or more.
- Avoid application under strong wind conditions (5 m/sec or more as a rule).
- When spraying, take measures to prevent scattering with nets and thin plywood.
- If there is rainfall during or immediately after application, the unhardened paint mixture may leak out and contaminate the surrounding soil and/or river. Do not perform application if rainfall is expected.
- Perfect cool A shall be transported and stored at 0°C or more and 40°C or less. Store in a cool, dark place indoors to avoid direct sunlight and rain. Be careful not to freeze the paint during cold weather. The paint once frozen cannot be used.
- Use within one year after delivery from the factory. Use the product as soon as possible after opening the package.
- Do not pour paint and washed water into the sewer system.
- When disposing of the cloth, garbage, and used cans attached to this product, properly dispose of them in compliance with the relevant laws and regulations.
- Keep out of reach of children.
- For other details, refer to the SDS (Safety Data Sheet).

PRODUCT DATA

Product volume	15 kg/can
Color	9 colors (gray, light green, blue, ivory, light brown, earth, green, red brown, deep ash)
Product data	Refer to the Product Data Sheet.

(Values shown in the Product Data Sheet are theoretical values, depending on the test method, accuracy of equipment used for the test, and test conditions.)

APPLICATION DATA

Perfect Cool A can be used in the following ways:

Mixing

Mix perfect cool A with silica sand and fresh water at the rates shown below.

Perfect Cool A (paint)	15.0 kg
Silica sand (0.0 mm to 0.3 mm)	7.5 kg
Fresh water	5 to 10% of the paint weight

PRECAUTIONS FOR SUBSTRATE SURFACE PREPARATION**[New asphalt pavement]**

- As a rule, new asphalt pavement should be dense asphalt pavement.
- When applying on a new asphalt pavement, the pavement shall be aged for a minimum of two weeks after the pavement is newly placed and the oil content on the paved surface shall be removed.
- Make sure the new asphalt pavement is completely dry to ensure adhesion of the paint mixture to the new asphalt pavement.
- Clean the new asphalt pavement thoroughly before applying the primer.

[Existing asphalt pavement]

- When applying on an existing asphalt pavement, make sure that the pavement is in a good condition, as a rule, dense grade asphalt pavement and that the existing pavement is free from cracks and aggregate scattering.
- Ensure that the base asphalt pavement is completely dry to ensure adhesion of the paint mixture to the existing asphalt pavement.
- Clean the existing asphalt pavement thoroughly before applying the primer.

[New Concrete Pavement]

- Make sure that the new concrete pavement is sufficiently dry. The standard drying (curing) time is four weeks or more after casting concrete.
- Remove any laitance or dirt on the surface of the new concrete pavement completely with a grinder before applying Perfect Cool A.
- Clean the concrete pavement surface thoroughly before applying the primer.

[Existing concrete pavement]

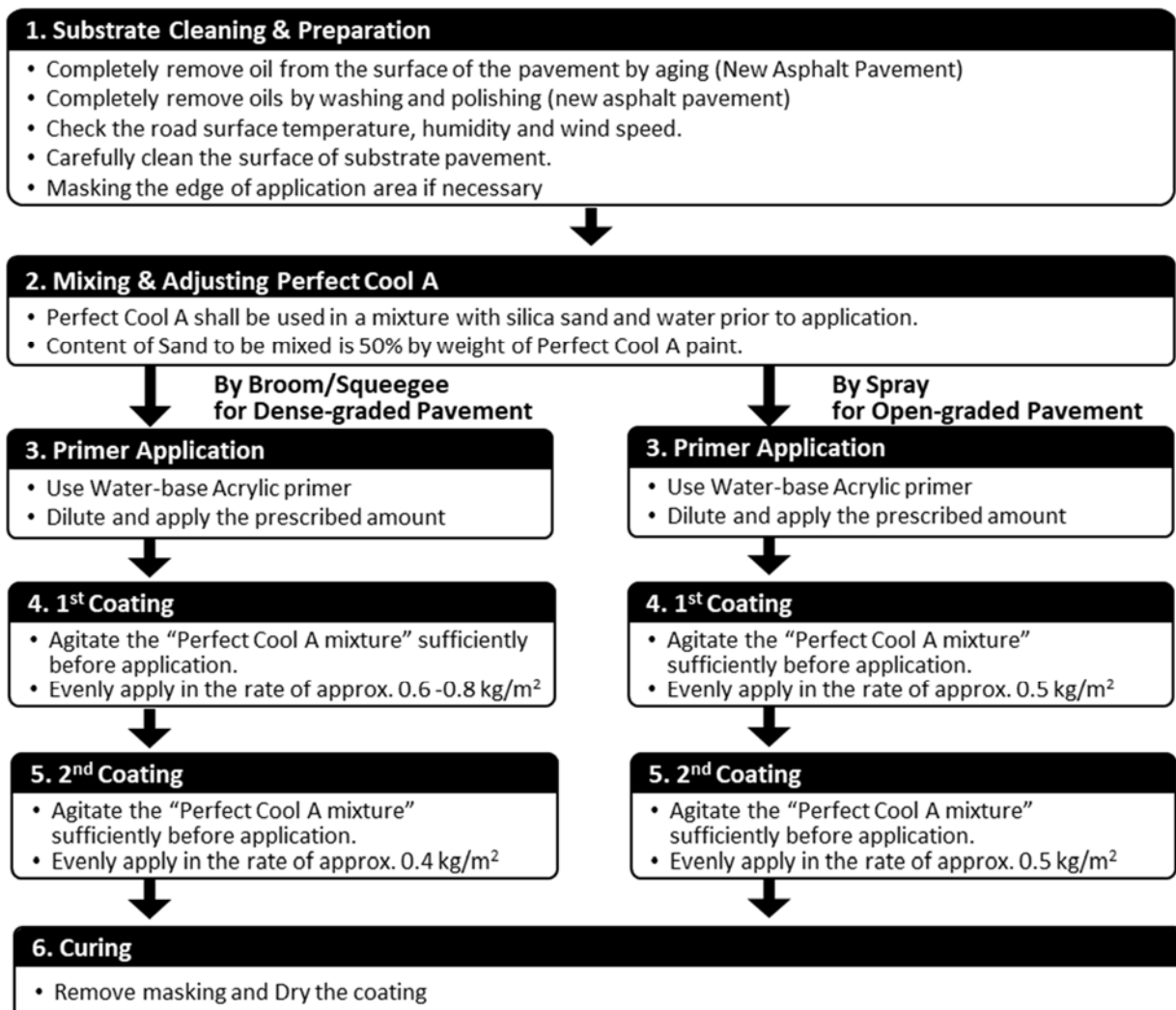
- Confirm that the existing concrete pavement is in a good condition, free from cracks and scattering of aggregate.
- Remove any laitance or contamination on the existing concrete pavement surface completely with a polishing machine.

METHOD OF APPLICATION

- Clean the substrate pavement surface thoroughly before applying the primer. Not only remove dust and dirt by blooms or blowers, but also certainly remove soil deposited by a pressure washer. Certainly dry the substrate surface after washing by a pressure washer. Remove and thoroughly clean oil and other contaminants sitting on the surface. In case that the substrate surface is not sufficiently cleaned, it can cause peeling of the coating

after application.

- For the primer, use an acrylic emulsion (water base) primer complying prescribed amount and method of its application. Make sure adherence and compatibility between the primer and substrate pavement before primer application. Also note that the water-based acrylic primers which have been used are National Paint's "NATIONAL ACRYLIC PRIMER (W.B.)" and JOTUN's "Jotashield Alkali Resistant Primer".
- For the sand, use No. 7 Silica Sand under Japanese standard or its equivalent which has similar quality and gradation (0.0mm – 0.3mm) complying prescribed amount to be mixed. When using the sand which is newly procured, make sure its qualification based on the data sheet issued from its manufacturer which containing the information for lithology, hardness, acidity/alkalinity, etc. and then make sure the quality after mixed with Perfect Cool A including its compatibility with Perfect Cool A, durability, skid resistance, etc. through laboratory testing and site trial. Also note that the sand which has been used is "JOTUN Non-Slip Sand (0.0mm-0.3mm)"
- When applying primer, make sure the enough adhesion and compatibility with substrate and Perfect Cool A before application.
- Apply the paint mixture (Mixture of Perfect Cool A, Sand and Water) prepared in accordance with the "Precautions for Paint Handling" to the substrate pavement with universal broom, rubber squeegee, roller brush or sprayer, and finish smoothly.
- If the substrate pavement has fine surface texture, it is recommended to apply the paint mixture using a rubber squeegee or a universal broom. If the substrate pavement has rough and irregular surface texture, it is recommended to apply the paint mixture by spraying with a sprayer.
- As a rule, apply and spray paint mixture when the road surface temperature is between 5°C and 50°C.
- When applying the second layer, make sure that the first layer is completely dry before applying the second layer. The drying time of each layer generally depends on the circulation of air, the temperature, the thickness and the number of layers.
- Make sure that paint mixtures do not adhere to shoes, tires, etc., before opening traffic. Pedestrian traffic can be opened about three hours later after application at an outside temperature of about 30°C.



NIPPO CORPORATION

※ The above description shows the standard application method. This does not necessarily apply to cases where it has been confirmed that application can be carried out without fail based on the judgment of an experienced scholar and the test and execution taking into account the local conditions.

Cleaning of painting tools

Water

Standard recommended ranges

Theoretical Coverage (full layer of paint mixture) 1.0kg/m² (exclude water and material loss)

HEALTH AND SAFETY

Observe the environment and precautions indicated on the container and the Safety Data Sheet (SDS).

DISCLAIMER

The information contained in this document is provided to our knowledge based on laboratory testing and practical experience. Our products are regarded as semi-finished products, and products are often used under conditions beyond our control. We cannot guarantee the quality of the paint mixture to be used and the quality and performance of the coated film of the applied paint mixture. We also reserve the right to change or modify the given data without further notice.

In the event of any inconsistency between issues in different languages of this document, the English version shall prevail.

(JUNE 2021)