

# Permanent Asphalt / Concrete Repair Solution AQUA PATCH

Solution permanente de réparation  
des chaussées en asphalte et en béton  
AQUA PATCH



AQUA Patch is a cold-mix, permanent repair solution for asphalt and concrete applications that reacts with water to harden quickly, making it traffic-ready in just one hour. The proprietary hardening agent is environmentally friendly and renewable.

## AQUA PATCH

### Save money by eliminating repeat repairs!

**Fast** - Hardens in one hour (traffic-ready)

**Easy** - Just add water

**Safe** - Environmentally friendly

**Permanent** - As hard as hot mix asphalt

**Convenient** - Use in winter or summer, rain or shine!



### Doing the job right the first time is now faster and easier than ever!

AQUA Patch saves time and money while delivering a superior, permanent repair to asphalt and concrete surfaces. This cold-mix, water-activated product is environmentally friendly. It hardens quickly and is traffic-ready in just one hour.

Unlike other asphalt patching solutions, AQUA Patch provides a permanent solution, using revolutionary organic renewable additives, so you don't have to repeatedly repair the same trouble spot, or replace a temporary fix with a permanent solution.

Don't let weather interfere with your production schedule. You can use AQUA Patch all year round, in all types of weather—hot or cold, wet or dry. Rain and moisture help accelerate the curing process.

AQUA Patch is traffic-ready in just one hour after compaction, so road repairs don't tie up traffic as long.

### Applications

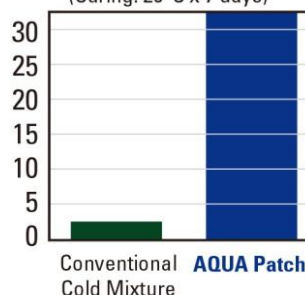
- ◆ Asphalt road patches
- ◆ Concrete road repairs
- ◆ Pothole repairs
- ◆ Driveways, walkways, and parking lots
- ◆ Utility cuts and manhole repairs
- ◆ Bridge joints

### Benefits

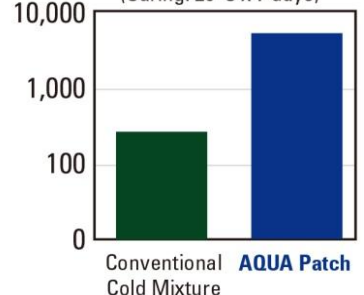
- ◆ Easy – pour AQUA PATCH, add water, and tamp
- ◆ Durable - as hard as hot-mix asphalt
- ◆ Fast & hard - traffic-ready in just one hour
- ◆ Saves money - eliminates repeat repairs
- ◆ Environmentally friendly
- ◆ Can be sealed with a seal coat immediately after one hour cure of curing.

### As hard as hot-mix asphalt

Marshall Stability Test  
(Curing: 20°C x 7 days)



Wheel Tracking Test  
(Curing: 20°C x 7 days)



Please contact JALUX Inc. for any inquiries.

\*JALUX Inc.\* (Sales Agent)

E-mail: [aquapatchasphalt@jalux.com](mailto:aquapatchasphalt@jalux.com)

Website: <https://www.aquapatchasphalt.com>



# Cold-Mix Gussasphalt Repair Solution

## MILD GUSS

Matériau d'asphalte coulé à froid  
pour la réparation des revêtements

### MILD GUSS



This is a cold-mix gussasphalt material for pavement repair. It is chemically reactive, and when the binder is poured into the gaps between the single-sized aggregates, the binder and aggregates harden together to form a waterproof layer with excellent impermeability.



**MILD GUSS is suitable for small scale repair of gussasphalt pavement.**

#### ◆ Impermeability

Its permeability is less than  $10^{-7}$  cm/s, which prevents water from penetrating and can protect the slab underneath.

#### ◆ Minimal waste

MILD GUSS can be applied on-site by the set (0.5 m<sup>2</sup>), making it both economical and environmentally friendly with minimal waste.

#### ◆ Easy to handle & high performance

Can be applied at normal temperatures for added safety and with simple equipment such as standard hand mixers. Meets heated guss quality standards.

#### ◆ Reduced CO<sub>2</sub> emissions

Does not require a cooker truck for heating and mixing asphalt, which reduces the amount of CO<sub>2</sub> released during construction.

### Package content

**1 set can be applied over an area of 0.5 m<sup>2</sup>**

#### Contents

Binder (9.2 L)  
Powder (2.0 kg)  
Curing accelerator (65 g)



### Typical physical characteristics

MILD GUSS [Base: aggregate size]	Dynamic stability (passes / mm)	Bending fracture strain (mm/mm)	Permeability coefficient
MILD GUSS (20) [20-13 mm]	Approx. 2,500	Approx. $15 \times 10^{-3}$	Impermeable
MILD GUSS (13) [13-5 mm]	Approx. 1,700	Approx. $15 \times 10^{-3}$	Impermeable
Standard value	500 or more	$8.0 \times 10^{-3}$ or more	Impermeable

### Installation steps



# Thin-Layer Surface Treatment Method with Anti-Freezing Effect

## FREEZE OFF COAT

Procédé de traitement de surface en couche  
mince à propriétés antigel  
FREEZE OFF COAT

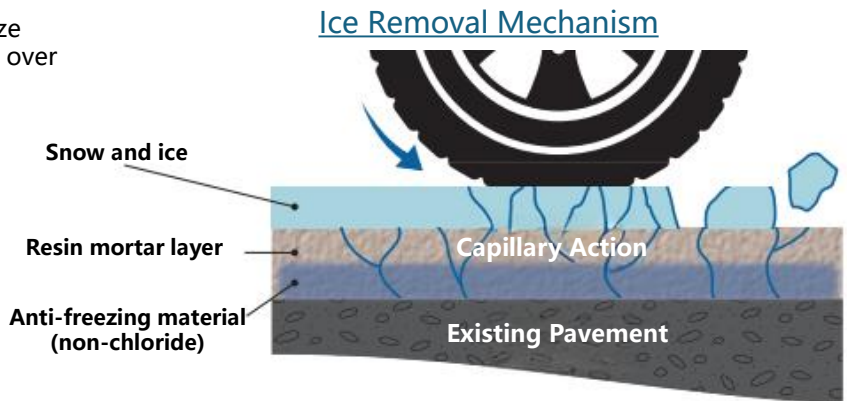


### What is FREEZE OFF COAT?

Freeze Off Coat is an anti-freeze surface treatment layer placed over an existing pavement.

The non-chloride material that seeps out of the surface treatment layer has an anti-freezing effect.

Although the anti-freezing effect gradually decreases over time, the effect can be maintained by recoating.



**Point** The anti-freezing effect is maximized at atmospheric temperatures of  $-5^{\circ}\text{C}$  to  $0^{\circ}\text{C}$ .

### Typical Construction Steps



#### Manual Work

Scale of work: Up to approx. 200 m<sup>2</sup>  
Number of workers: 4 to 6

Recommended for confined spaces or sites with complex configurations



#### Machine-Assisted Work Execution (using small, special-purpose equipment)

Scale of work: Up to approx. 500 m<sup>2</sup>  
Number of workers: 7 or more

Recommended for spacious places or in cases where coating is to be done only along the tire contact patch

A red version designed to draw attention is also available.

### Anti-Freezing Effect



1. The surface treatment layer absorbs the anti-freezing material to sustain the effect over a longer period of time.
2. The non-chloride material is less corrosive to metals than chloride-based anti-freezing agents.

Freeze Off Coat cannot be used on open-graded pavements and heavily damaged pavements.  
Tire chains and snow removal operations may cause accelerated the wear of the surface treatment layer.



# Stationary anti-freezing agent spreader Makiemon



Épandeur d'agent antigel stationnaire  
Makiemon



Makiemon keeps winter roads  
safe around the clock.



Standard type  
**DSF020-3**

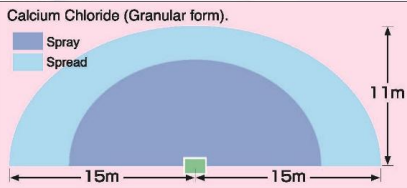


Compact type  
**DSF020-3C**

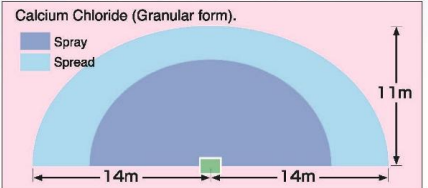
## Spray range

- \* The charts show the spray range of granular calcium chloride under windless conditions.
- \* In the case of calcium magnesium acetic acid [CMA], the spray range is shortened.
- \* The spray range changes according to the surroundings or installation conditions.

[DSF020-3]



[DSF020-3C]



## Control panel

- The spray methods are separated into automatic spray mode and a manual spray mode.
- On the right side of the machine, there is a control panel. You can control both automatic and manual operations with this control panel.
- When switching the automatic mode ON, Makiemon starts to work at the specified time and temperature.
- At time of shipment, the timer is set at 4:00 - 6:00 and 17:00 - 20:00 and at an open air temperature of -3°C.
- You can select any time. You can choose up to 5 patterns simultaneously.
- Temperature can be selected for a range from +5°C to -20°C.
- You can also check Makiemon's past spray record to confirm previous time and temperature settings.



Standard type

## Twin spinners

- Standard type : Both the left and right spinners revolve at a high speed and spray up to 11m forward and 15m to the left and right respectively when performing under windless conditions and when spraying calcium chloride [granular form].
- Makiemon can make use of both calcium chloride [granular form] and calcium magnesium acetate [CMA] [granular form].



## Control box

- You can control both spray functions and a record of spray-function history with the control box. In case of error, an error-code is indicated on the control box.



Standard type

## Battery

- Makiemon is constructed with a built-in battery to maintain efficient service cycles.
- When the battery is fully charged, Makiemon can work twice a day automatically and once more by hand, every day for 3 months. (However, it's in case there are no retry to spray by sensing any people or cars.)
- Makiemon has a built-in function with which you can check the machine's remaining battery power.



## Hopper inside

- Both the standard and compact models have a hopper with a 0.2m<sup>3</sup> capacity, the equivalent of 5 sacks of 25 kg anti-freezing agent. (When set to automatic spray twice a day and manual spray once a day, the anti-freezing agents must be re-filled at approximately 4 day intervals.)
- The mixer inside the hopper mixes the anti-freezing agents to spray uniformly.
- The hopper is made of FRP to prevent it from corroding.



Standard type

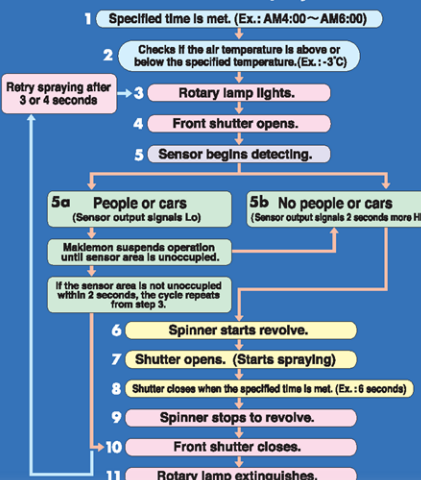
## Option

### Object sensor



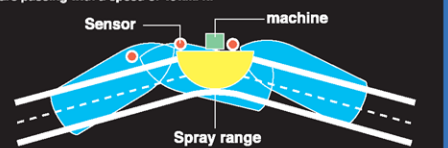
- The sensor is a device that detects occupying cars or people and suspends Makiemon's operation until the area is free of objects.
- Makiemon senses when cars or people no longer occupy the area and automatically begins operation. (Take note that once Makiemon's spray cycle has begun, sensor detection is suspended.)
- This sensor has a maximum range of 75m in length and 12m in width.

### Flow chart for automatic spray and sensor



### Standard operation

The following chart shows an example under the highest sensor settings of cars passing with a speed of 40 km/h.



### Sensor (Specifications)

Model		KBS-005
Capability	Sensor method	Micro wave
	Range	75m (Maximum length) 12m (Maximum width) The range depends on the object size.
	Angle	Maximum angle ; 44° The angle depends on the object size.
Outer dimension	Width	97mm
	Height	55mm
	Depth	161.5mm
	Weight	320g
Input voltage		DC24V
Electric currency		Maximum of 0.3A
Parts (Attachment)		Pole, Parts to stabilize pole, Parts to stabilize sensor, Electric cable, (1.25X3cordsX15m), bolts and fixtures, Cable bands, Electric connector.

