

Water-based

One pack



Super Dirt and Weather Resistant
Fluorine resin coating combined with inorganic components

SUPER CERATIGHT F

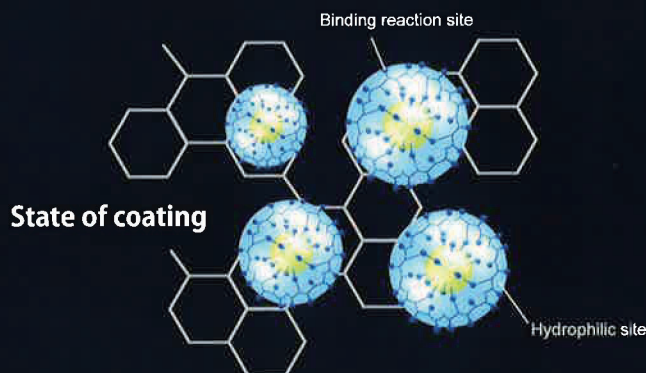
Fluorine resin coating greatly improved
in combination with inorganic components

There are a growing number of high-rise buildings in large cities. Since their frequent renovation is not practical, the coatings need to provide a long maintenance cycle and prevention of contamination.

SUPER CERATIGHT F – fluorine resin coating combined with inorganic components – forms a super weather resistant paint film. It is also super dirt resistant due to hydrophobicity. This outstanding next generation coating is the best for renovation of high-rise buildings.

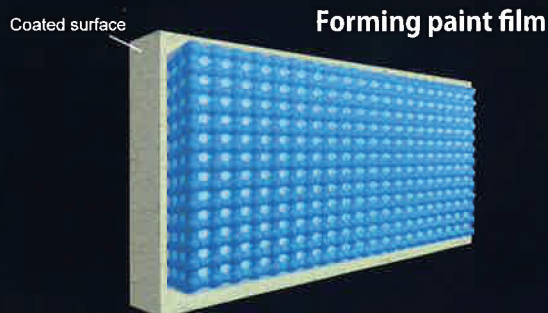
Super dirt & weather resistance mechanism of organic / inorganic special hybrid paint film

The reactive curing special fluorine resin emulsion combined with inorganic components forms organic / inorganic special hybrid paint film. The hydrophilic and tough film surface provides super dirt and weather resistance.



Reactive curing special fluorine resin emulsion
combined with inorganic components

Evaporation



Organic / inorganic special hybrid paint film

Uses

Exterior of commercial buildings, condominiums,
stores, offices, factories, warehouses, schools, and
public facilities

Packing

SUPER CERATIGHT F (gloss, semi gloss, 30% gloss)	16 kg/can, 4 kg/can
SUPER CERATIGHT F MID COAT	16 kg/can, 4 kg/can
SOFTSURF SG	16 kg/can
MIRAC SEALER ECO W (White)	15 kg/can

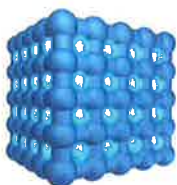
SKK



Super Weather Resistance

Mechanism 1

Both inorganic part (ceramic Si-O binding) and organic part (fluorine resin binding) have high binding energy. They strongly combine each other in a three dimensional way and form a fine surface that provides excellent weather resistance.



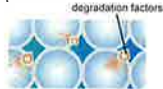
Mechanism 2

Special hybrid resin paint film achieves super dirt resistance. It prevents the production of degradation factors and also catches them through photostabilization.

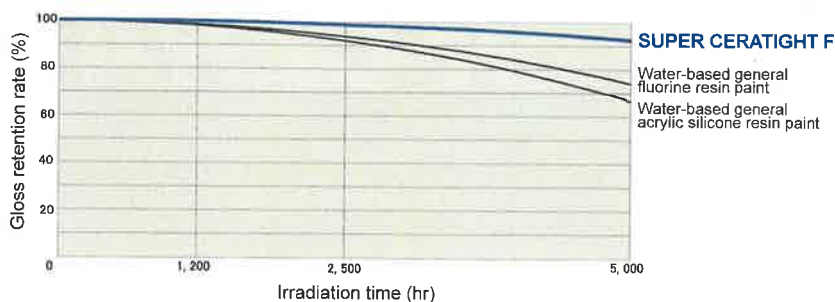


Block and Trap

Production of degradation factors
UV rays, oxygen, and water cause the production of the factors that cause degradation of paint film.



Accelerated weather resistance test (Xenon Lamp test)



Renovation cycle



* A renovation cycle changes depending upon the location and environment.
* The renovation cost changes depending upon the conditions of substrates.



Super Dirt Resistance

Mechanism 1

Hydrophilicity

The hydrophilic sites contained in the special fluorine resin emulsion make paint film surfaces hydrophilic. Dirt on the surface is gradually removed by rainwater, and the paint film provides excellent dirt resistance for a long period of time.

Conventional paint
The paint film repels rainwater, so dirt stays.



SUPER CERATIGHT F
Rainwater covers the surface and washes out dirt.

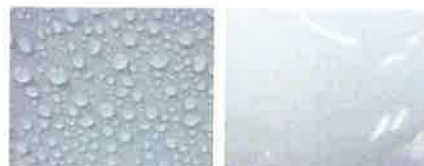


Outdoor exposure for 6 months



Conventional paint SUPER CERATIGHT F
SUPER CERATIGHT F prevents contamination for a long time.

Hydrophilic surface

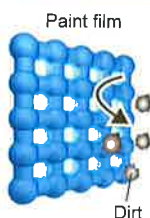


Conventional paint SUPER CERATIGHT F
The hydrophilic paint film of SUPER CERATIGHT F allows dirt to be easily removed compared with general paint.

Mechanism 2

Fine paint film

The paint film with high cross-linking density prevents contamination by repelling dirt and dust.



Mechanism 3

Low static charge

The reduction in static charge prevents the paint film from attracting air pollutants (exhaust gas, dust).

Other features



Anti-fungus and algae

Having strong resistance to microbes such as mould and algae due to its special composition



Workability

One pack material provides stable performance without being bothered by measuring, mixing and stirring.



Safety design

Water-based material eliminates the risk of solvent poisoning and a fire, and improves the work environment.

Technical test data

Testing result based on JIS K 5660, Glossy synthetic resin emulsion paint

Test item	Result	Criteria
Condition in container	Passed	When stirred, it makes uniform condition without any hard lumps.
Workability	Passed	There shall be no difficulties.
Appearance of paint film	Passed	Normal in appearance of paint film.
Low temperature stability (-5°C)	Passed	No deterioration observed.
Surface dryness	Passed	Normal Temperature
		Low Temperature
Contract ratio (%) (White and light colour)	97	95 or more
Specular gloss	79	70 or more
Water resistance	Passed	No damage observed.
Alkali resistance	Passed	No damage observed.
Washability	Passed	There shall be no damage observed after the test.
Humidity and cool-heat cycling resistance	Passed	There shall be no damage observed after the test.
Accelerated weather resistance	Passed	The gloss retention rate shall be 60% or more. The degree of chalking shall be 1 or 0. The degree of colour change is not larger than that of evaluation sample.
Outdoor exposure weather resistance	Passed	The degree of chalking shall be 2, 1, or 0. There shall be free from cracks, peeling, blisters, and pinholes. The change of colour and gloss shall not be larger than that of evaluation sample.

Job references



Parkin Commercial Building (Hong Kong)



The Lily, Repulse Bay (Hong Kong)



Macau Border Gate Terminal (Macau)



A condominium (Hong Kong)



Hong Kong Institute of Construction (Hong Kong)



A condominium (Hong Kong)

■ New building / Multi-layer coating material E

(23°C)

Process		Material	Dilution ratio (wt. %)	Consumption (kg/m ²)	No. of coat	Interval (hrs)			Remarks
						In process	Between processes	Final curing	
Surface treatment ^{*1}		<ul style="list-style-type: none">● Dry surface thoroughly to bring water content to a maximum of 10% and pH to 10 or less.● Completely remove any dirt and dust, and make good of unevenness, irregularities and scratches.							
1	Undercoat ^{*2,3,4}	MIRAC SEALER ECO W (White)	Pre-mixed	0.10-0.13	1	—	2 or more	—	Roller, Brush, Airless spray gun Discharge: 600-1000ml/min Pattern width: 25-30cm
2	Main coat ^{*6}	LENALUCK	100	1.3-1.7	1-2	2 or more	(Spray) 16 or more (Pressing) 0.5 or less	—	Tile gun Nozzle tip: 6.5-10mm Pressure: 392-588kPa (4-6kg/cm ²)
		Water	0-5						
(3)	Pressing ^{*7}	Press the surface with a plastic roller damped in PAINT THINNER A.				—	16 or more	—	—
4	Mid-coat ^{*10}	SUPER CERATIGHT F MID COAT	100	0.15-0.17	1	—	2 or more	—	Roller, Brush, Airless spray gun Discharge: 800-1000ml/min Pattern width: 25-30cm
		Water	0-10 ^{*8,9}						
5	Topcoat	SUPER CERATIGHT F	100	0.15-0.18	1	—	—	24 or more	Roller, Brush, Airless spray gun Discharge: 800-1000ml/min Pattern width: 25-30cm
		Water	0-10 ^{*8,9}						

NOTE: For ALC panels, prepare the substrate with C-2 surface conditioner (MIRAC FOUND KC-2000, KAKEN CEMENT FILLER) before application.

■ Renovation Regarding Main coat and Mid-coat application, refer to the above procedure.

(23°C)

Process		Material	Dilution ratio (wt. %)	Consumption (kg/m ²)	No. of coat	Interval (hrs)			Remarks
						In process	Between processes	Final curing	
Surface treatment		<div>● Remove deteriorated parts on the old paint film with a sander, trowel, or scraper, and then repair the surface with MIRAC FOUND KC-1000 and reproduce the patterns. When applying a cement surface conditioner (MIRAC FOUND KC-1000, 2000, 3000), apply an undercoat (MIRAC SEALER ECO W, etc.) onto it.</div> <div>● Remove dirt, dust, stain, etc. thoroughly with high-pressure jet washer (5-15MPa).</div>							
1	Undercoat (Thick finish)	SOFTSURF SG	100	0.8-1.5	1-2	3 or more	6 or more	—	M-9 Roller (Mastic Roller)
		Water	2-5	—					
1	Undercoat (Thin finish)	SOFTSURF SG	100	0.3-0.6	1-2	3 or more	3 or more	—	Wool Roller (Medium nap)
		Water	5-8	—					

*1 There are some cases applying sealer or sanding the surface is necessary depending on substrate condition. For details, please contact the nearest sales office.

*2 DO NOT dilute the material. It may cause poor adhesion or degrade the performance.

*3 Choose an appropriate undercoat depending upon the type of a substrate. Especially for precast cement boards, GRC panels, etc. use SK HYBRID SEALER EPO (15 kg/set), MILD SEALER EPO (Clear, White) (14 kg/set) or MIRAC SEALER EPO (15 kg/set). Do NOT apply materials on the lightweight PC members.

*4 MIRAC SEALER ECO W(White) may turn into a gel when being mixed with other water-based materials. Avoid mixing it with other materials. Do not share application tools such as brush, roller, spray gun, etc. with other materials. Do not wash tools together with other materials.

*5 SOFTSURF EPO W (16kg/can) can be also used.

*6 The consumption for small mount finish is 0.6-0.8 kg/m² (Standard coverage 25-34m²/set).

*7 Never use other materials such as kerosene (oil).

*8 Dilution ratio with water is 5-10 wt.% for spray application and 0-10 wt.% for roller and brush application.

*9 Decide a dilution ratio of mid-coat and topcoat after test application. Stick to the dilution ratio once it is decided. However, the dilution ratio may vary depending on colours and temperatures.

*10 Ensure to apply mid-coat. Otherwise it will cause peeling or degrade the performance.

*11 Scrubbing the surface of dark colours and vivid colours may cause the colour fading. Avoid the application to the area where clothes may contact.

*12 In case the colour of the topcoat is close to vivid colours such as yellow, red, blue, green, etc., apply the undercoat of the same colour as the topcoat to increase the hiding power.

*13 The material with semi gloss and 30% gloss may look different from the actual gloss depending on a shape of an applied area, paint film thickness, colour, number of coat or dilution ratio. Also, application with a roller may cause uneven finish at the laps of strokes. Apply the material after test application.

*14 Dirt resistance may not be demonstrated on some areas including the bottom of sloped walls, top rails (without gutters), around windows with improper gutters, or an area not exposed to rain.

*15 Apply the topcoat uniformly. Enough consumption is important for the materials to demonstrate dirt resistance. In particular, pay close attention not to leave unapplied area in the rough parts.

*16 Apply the topcoat in accordance with the specified drying time (final curing time). If wet paint film is exposed to moisture such as rain water for long hours, dirt resistance may not be properly demonstrated. Dirt resistance is performed on the dry paint film. If rain is forecast during the curing time, protect the surface with sheets against rainwater and follow the specified drying time.

*17 Dirt resistance may not be well demonstrated against dirt caused by iron rust or sealant.

*18 For peeling parts of an old paint film, the patterns shall be matched in accordance with the application specification of the old paint film.

*19 When applying to lightweight mortar, ALC panels, high heat insulating exterior walls using high heat insulating ceramic siding or urethane foam, some defects including deformation of a panel, blister or peeling may occur due to various negative factors such as heat storage, water, conditions of substrate, or application environment. For details, please contact the nearest sales office.

*20 For renovation, a solvent-based material may damage existing paint film and cause blisters or shrinkage. Check the condition by test application in advance.

*21 The material prevents fungus and algae from growing. Fungus and algae resistance may not be fully achieved depending on the structure and shape of the application area and the environmental condition.

*22 Remove fungus and algae with SKK KABI CLEAN #5 (chlorine-based) if necessary.

*23 The consumption varies with various conditions, such as the shape of the object to be applied, the condition of a substrate, application method, weather condition, dilution ratio, etc.

*24 The interval between coats varies depending on the environment (temperature, humidity, ventilation) and the paint film thickness.

*25 Drying speed slows at low temperature or high humidity.

*26 Be sure to keep some materials for the touch-up as it may be required later. When touching up, use materials of the same lot number and follow the same application method as the original application.

*27 In case of touch-up, slight colour difference may occur due to the difference of the finish. Decide the dilution ratio after checking the finish by test application in advance.

*28 The colour of an area touched up with a brush may be slightly different from that with a roller or spray.

*29 If the material is applied onto sealant, the paint film may not adhere or may be contaminated depending on the type and age of sealant. For details, please contact the nearest sales office.

*30 DO NOT apply to sealant where a gap is wide and some movement may occur. It may cause cracks.

*31 Acid of a ceramic tile cleaner may discolour or dissolve the surface. Protect the surface to prevent this from happening.

*32 DO NOT use the material where heavy dew condensation is expected. It may cause blisters, peeling or chalking.

*33 Rainfall or dew during a final curing period may cause blisters, peeling, chalking, stains or loss of gloss. Avoid application or remove moisture on the surface with forced ventilation.

*34 Applying the material where heavy dew condensation may cause stains. Avoid application or use the solvent-based material with forced ventilation.

*35 In case of the occurrence of stains by dew condensation, remove them with water after the surface dries.

*36 Avoid application in principle when it is windy, rain or snow is forecast, the temperature is below 5°C, or the humidity is over 85%. If not possible, make temperature of atmosphere and surfaces above 5°C by heating up or using masking sheets. The application conditions can be severe especially in winter, so discuss well with all the parties concerned in advance.

*37 Mix the materials homogeneously. Once opening a can, use it up quickly. If storing the material, seal the can of the undiluted material and keep it in a cold and dark place. Use the material as quickly as possible.

*38 For mixing, use the specified materials only. Mixing with any other materials may cause poor performance.

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