RAYS
アトムレイズ

2024.7

The Industry' s First

3D Reflection System

Contribute to a Longer Life in a Building

ATOMRAYS JS
アトムレイズJS

Acrylic Rubber Waterproofing membrane coatings
Water-Based One-component Thermal protection

High-Performance Waterproofing Material (JIS)

High-Performance Waterproofing Method
(Construction Thechnology Review and Certification)

New Thechnology(NETIS)

ATOMIX CO.,LTD.
アトミクス株式会社

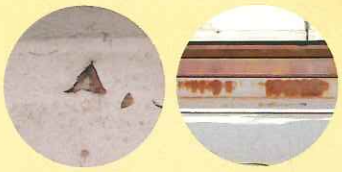
Safety,Reliability,Long-life of building We ofer a waterproofing method of construction that is Eco-friendly and can contribute to the extention of life of the building.

Torrential rains, Typhoons, Strong Sunlight, High temparature.
The building maintenance performed preventive maintenance and came to use it for a long term.

Why is the extension of life of building important?

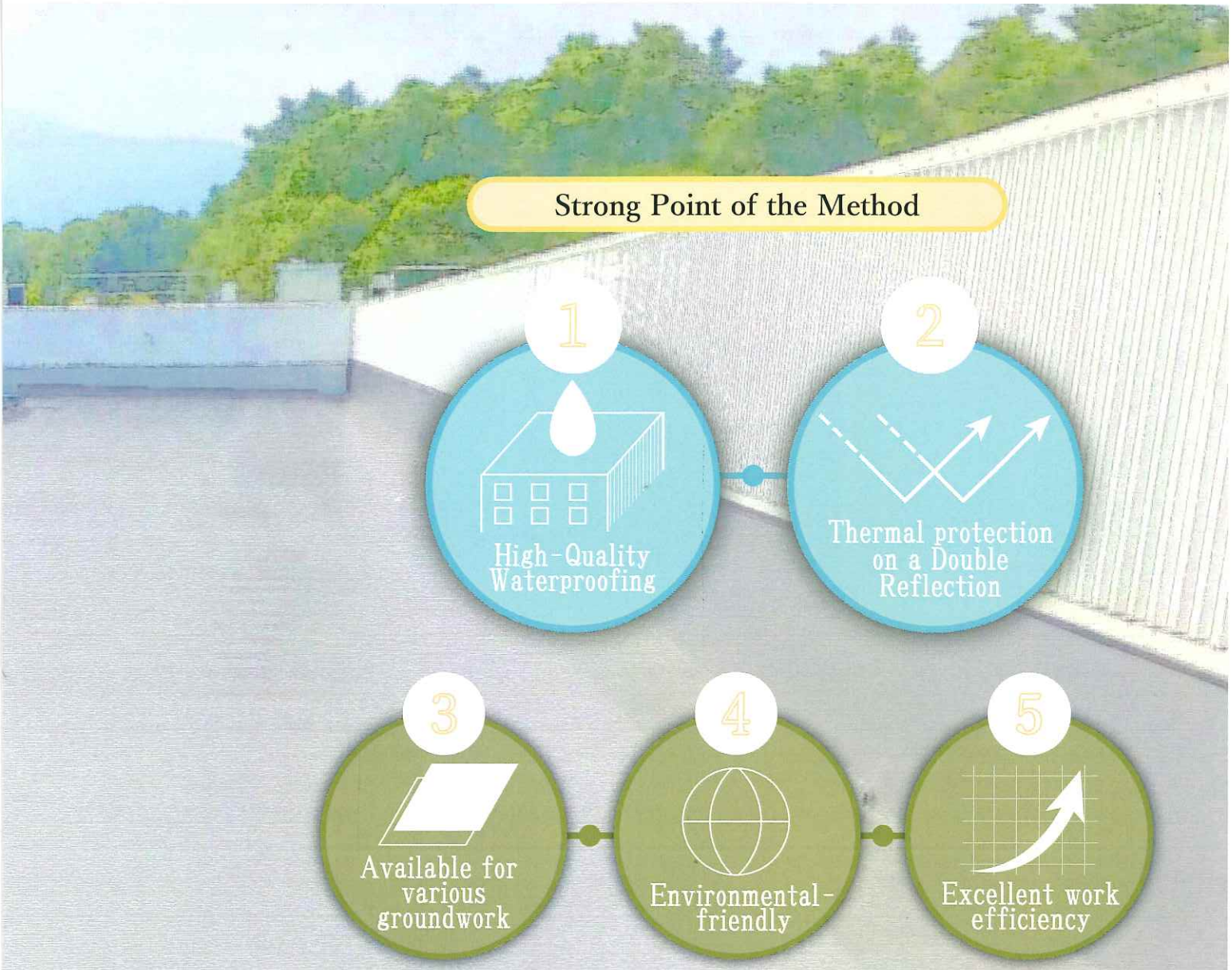
Strong Sunlight
Torrential rains

High temparature



Damege by rain and the sunlight is accumulated in the building.So,I need the repair that is a plan for a long term to use a building.

Protected it from Sunlight and Rainwater by this method.
We will let a building last a long time by performing periodical repair.



Contents

High-Quality Waterproofing

High-Quality Materials,Method, and Construction work

keyword
Warrenty (Max 10 years)

High-Quality Materials(JIS A 6021 Liquid-applied compounds for waterproofing membrane coating of buildings, Acrylic rubber for roof)

This coating has flexibility and strength, and even low temperture and a high temparature protect a building in the severe environment.

tensile test

High elasticity and Low modulars,so I can apply it in various groundwork.

JIS Authentication
(refer to p.18)

High-Quality Method(Construction Thechnology Review and Certification, BCJ-215)

- It is equal waterproofing performance with X-1,X-2(Urethane waterproofing)
- VOC reduction is possible in comparison with X-1,X-2(Urethane waterproofing)
- It has higher Reflectance of solar radiation of the near-infrared light domain than general coating waterproofing method of construction that I seemed to use heat-ray shielding top-coating

Not a water leak in test

gathered by a roof

It passed in Tokyo for nine years. There is not the leak of water, and there is flexibility, and there is not the big strength drop, too.

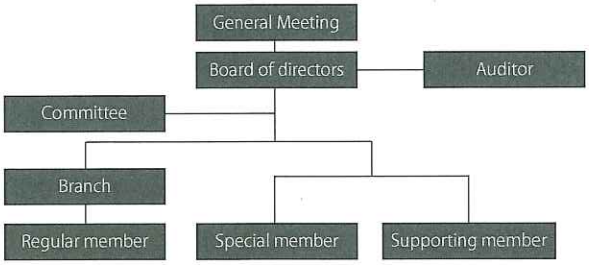
Report of Construction Thechnology Review and Certification

High-Quality construction

An authorized construction shop knows the groundwork and the materials and has an expert skill. These shops construct it with responsibility.

Thecnical workshop

Thechnical exchange meeting in Hiroshima University



Organization of Atomrays Industrial Association

column
Construction Thechnology Review and Certification

Appropriate to construction work by a new technology developed in the private enterprise; and introduce it smoothly. Spread of new technologies and the improvement of construction technical standards. People of learning and experience examined it objectively and was proved.

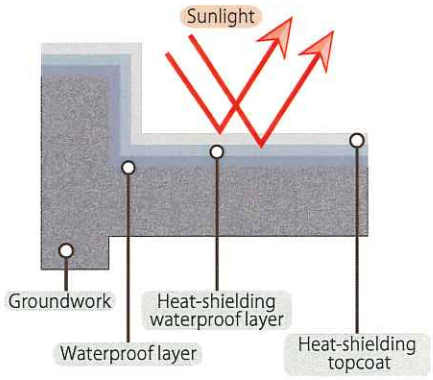
Thermal protection on a double reflection

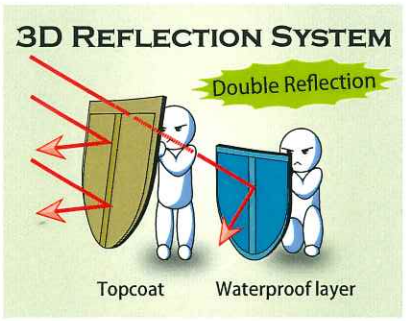
High tempertures and temperture difference by strong solar radiation Contributing to the Long-life of building and against heat strokes in the workplace.

keyword
Long-life of buildings
Against heat strokes

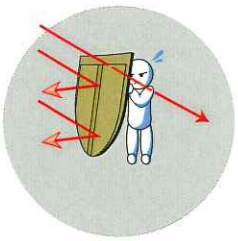
Double Reflection System (Heat-Shielding Waterproof coating + Heat-Shielding Topcoating)

An effect is higher than general waterprooting method and lasts a long time. It is an original technique registered with Construction Thechnology Review and Certification and NETIS.





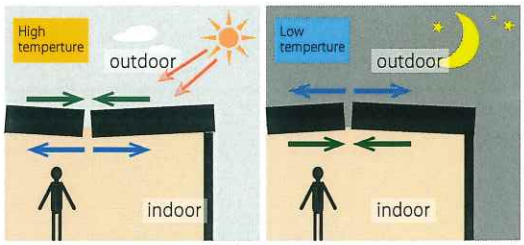
general waterproof method (with heat-shielding topcoat)



Contributing to the Long-life of building

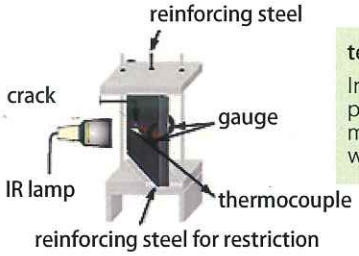
The method of construction controls thermally deteriorating it and the expansion and the shrinkage accomanied with the heat change of the building.

Collaborate it with Hiroshima University



The surface temperature of the roof increases to 60 ℃ or more by sunlight.
Repeat the expantion and shrinkage by a night temperature difference in the daytime.

→ ← ← → Crack movement



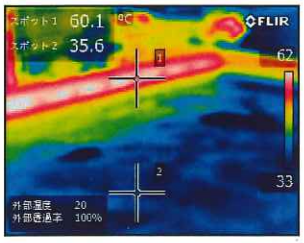
testing method
Irradiated IR lamp to test-piece,and measure movement of the crack with a temperature change.

By this system, I was able to control movement of the crack to about 60%.

Against heat strokes

Recommend Use
- Against heat strokes(roof of bedroom,and the gymnasium which is utilized as refuge)
- Work efficiency improvement(roof of factory)

Construction result (Miyazaki Pref. 6 years later)



62℃
33℃

coated surface: about 36℃
metallic parapet caps: about 60℃
temperature: 30℃

Voice

It is dissolved from wakeful every day by the severe sunlight, and the effect continues after the progress for 6 years.

column

NETIS

The new technology reporting system which the Ministry of Land, Infrastructure, Transport and Tourism arranged for the purpose of an information sharing about new technology and an offer.

Reduction of the Life Cycle Cost

I let a building extend its life by preventive maintenance, So reduce life cycle cost.

keyword
Durable
overlay

Reduced deterioration by thesunlight

By strong sunlight,the waterproofing materials deteriorate under the influence of heat and UV rays.
Acrylic rubber system waterproofing materials can protect a roof for a long term,
because this waterproofing materials resist ultraviolet rays and heat.

Thermal degradation testing(100℃×30days)

before testing | after testing | before testing | after testing

ATOMRAYS JS

Urethane coating waterproofing materials

No cracking and a change of color embrittlement and yellowing

carry out 3000 hours accelerated weathering test

This examination reproduced outdoor environment artificially by water spraying, lamp irradiation and a temperature change. The 3000-hour examination is the amount of ultraviolet rays of the equivalency for ten years.

ATOMRAYS JS

Urethane coating waterproofing materials

ATOMRAYS JS have few deterioration by ultraviolet rays.
That the urethane coating waterproofing materials deteriorate by ultraviolet rays and produce crazing, it is necessary to repaint a topcoat to be similar.

Do not put a burden on the groundwork＝An overlay is possible

Lightness

It is about 40% of weight than urethane coating waterproofing materials.

Low modulars

Follow movement of the groundwork gently.

Water-based method

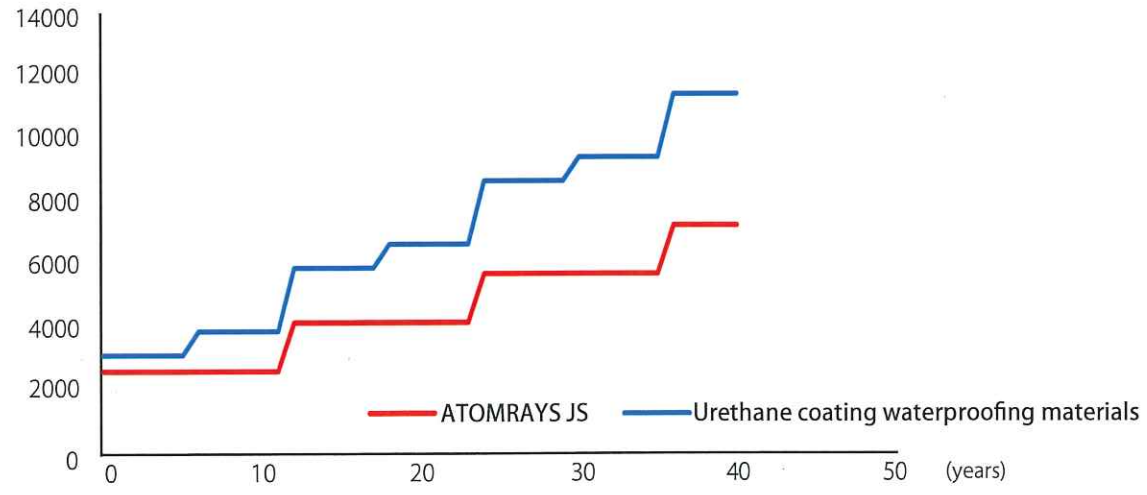
Do not damage the groundwork

Reduce Life Cycle Cost

High durability,Overlay, do not need a removal expense, not necessary to paint with a topcoat repeatedly.

Repair by the direct application to asphalt waterproofing construction method

(Design price 1,000yen/300 ㎡)



※estimated it using a design price,It is different by the spot situation.
※It is an estimate and is not a guarantee value.

Excellent work efficiency

High efficiency,High safety Introduce advanced technology into an investigation diagnosis, construction

keyword
AI
Mechanization

ATOM SURVEY SYSTEM (by the drone)

- Evasion of the fall risk
- Reduction of the scaffolding expense
- Know the situation of the roof quickly
- Can confirm the secular variation

Strong Point

Flight investigation

3D image composition

advantages

- AREA MEASURING
- SURVEY and Diagnostics
- Documentation
- Color simyulation
- Historical management
- Periodic inspection

An investigation flight may not be possible by location requirements.

Mechanization(Spraying)

Little scattering. Available for a complicated shape.
Apply it uniformly and quickly.

For Folded-plate roof,
Flat roof

The step does not become dirty, too.

Recommended construction machine
Ultra Max II 495 PC Pro
(Graco) Electric trueairless sprayer

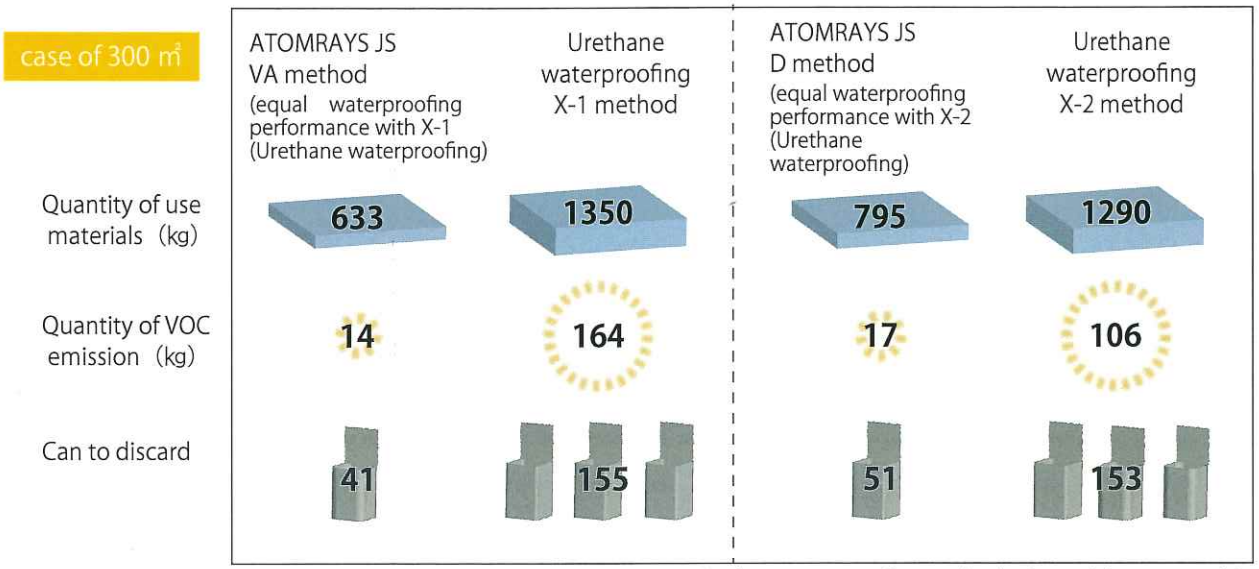
In the case of the construction, please confirm surrounding environment or yes or no of the wind.

Environmental-friendly

Realization of the sustainable society Reduce a burden to a person and environment and pursue relief

Reduce environmental load

I utilize limited resources effectively and push forward environmental load reduction



※Urethane waterproofing method:estimate it in our materials

ALL aqueous material Little quantity of use materials
All materials are 1 liquid types
An overlay is possible
↓
Largely reduce Quantity of VOC emission
There are few resources to use, and there is little waste, too

The handling of drainage is easy, too

Harden the waste water which occurred in the case of spray construction and can handle it

※In the case of the disposal, please obey the instructions of the specialized supplier

column

Specified Chemical Substance

The material that there might be the carcinogenesis by revelation of the very small amount
The material which an acute obstacle might produce by mass inhalation and contact

TDI and MOCA which are specified chemical substance are combined with conventional urethane coating waterproofing materials

column

VOC

•volatile organic compound
VOC is considered to be one of the causes of the sickhouse syndrome and the air pollution

Safety, Reliability, Low Odor

Do not contain Isocyanate and MOCA
Aqueous material,low odor

Laws and regulations	Summary	Method of ATOMRAYS JS Water-based Acrylic Rubber Waterproofing membrane coatings	General method Urethane coating waterproofing materials
Prevention of Hazards due to Specified Chemical Substances	Prevent the carcinogenesis and other health hazard of the worker with the chemical substance	not applicable	contain isocyanate and MOCA
Prevention of Organic Solvent Poisoning	Prevent acute poisoning and chronic poisoning of the worker with organic Solvent	not applicable	Xylene and toluene contain it to a primer and a topcoat Need a gas mask
Fire Service Act	Prevent a fire and an explosion accident during storage and transportation	Non-dangerous goods (not inflammability)	Main agent;class III petroleums hardener ;designated flammable goods
Standard for school environmental sanitation	Regulate a causative agent of the sickhouse syndrome in the school	•Non-inclusion	Xylene and toluene contain it to a primer and a topcoat Need a gas mask

Prevent a spread of fire

Flying sparks test

combustion test

ATOMRAYS JS D merhod
RAYSTOP SG

Class II of the flame retardant

List of the method

List of the method

groundwork	Common	Method	Note
asphalt waterproofing (concrete)	Direct	JS D Method THERMO	equal waterproofing performance with X-1(Urethane waterproofing)
	AIR-PERMEABLE BUFFER	JS Eco-fix Method THERMO	equal waterproofing performance with X-1(Urethane waterproofing) Mechanical fixing method
	AIR-PERMEABLE BUFFER	JS VA Method THERMO	equal waterproofing performance with X-1(Urethane waterproofing) Method for adhesion by adhesive
Exposure asphalt waterproofing	Direct	JS A Method THERMO	—
Urethane waterproofing method	Direct	JS D Method THERMO	equal waterproofing performance with X-1(Urethane waterproofing)
Waterproof Rubber Sheet	Direct	JS D Method THERMO	set up mesh in the whole
	Direct	JS S Method THERMO	set up mesh in the joint
Polyvinyl chloride waterproof sheet	Direct	JS D Method THERMO	set up mesh in the whole
	Direct	JS S Method THERMO	set up mesh in the joint
Asphalt single	Direct	JS As Method THERMO	—
Sloped Metal roof	Direct	JS M Method THERMO	—
Slate roof	Direct	JS Repair of Slate Method THERMO	※1
RISING PART	Direct	JS T-D Method THERMO	set up mesh in the whole

For more details, confirm specifications sheet, each method of construction specification
By the situation of the groundwork, the method of construction may change
In the case of a general method of construction, I use all ATOMRAYS JS for waterproof layer
※1 When waterproofing is necessary, please refer

Topcoat Series

Products	Type	strong point	Quantity of application
RAYS-TOP SG	Water-based acrylic urethane (1component,high gloss)	heat shielding	0.13kg/ ㎡ ×2
RAYS-TOP SI	Water-based acrylic silicon (1component,high gloss)	heat shielding High durability	0.13kg/ ㎡ ×2
RAYS-TOP VR	Weak-solvent based acrylic urethane (2component,high gloss)	heat shielding Super high durabilityHigh durability	0.2kg/ ㎡ ×1
RAYS-TOP H	Water-based acrylic (1component,contain sand)	Anti-slipping	0.4kg/ ㎡ ×2
RAYS-TOP L	Water-based acrylic (1component, mat)	mat finish	0.15kg/ ㎡ ×2

no effect of heat shielding (RAYS-TOP H, RAYS-TOP L)

Standard Color of RAYS-TOP SG,SI,VR


Shanetsu gray


Shanetsu brown


Shanetsu neo-green

Shanetsu whitecream

Shanetsu whiteblue

Standard Color of RAYS-TOP H, L


silver-gray


green


brown


gray

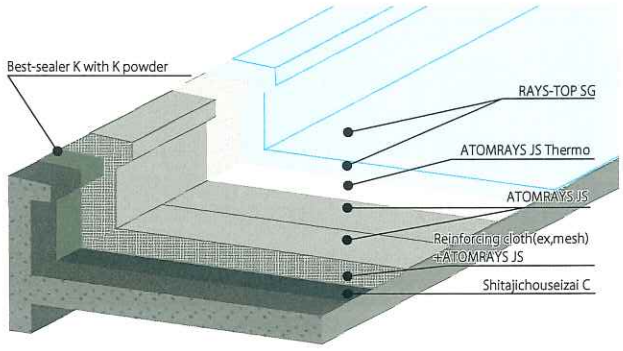
It is a little different from the real color for printed matter. Please confirm a color sample.
It is available for the correspondence of the color to appoint. For more details, please refer.

equal waterproofing performance with X-2
(Urethane waterproofing)

1. ATOMRAYS JS D Method set up mesh in the whole
[correspondence groundwork] Asphalt waterproofing(concrete), Waterproof Sheet, Urethane waterproofing

(flat ground)ATOMRAYS JS D Method THERMO
Asphalt waterproofing(concrete)

	process	Materials	Quantity of application
1	preparation of surfaces	Shitajichouseizai C ※1、※2	1.0 kg/㎡
2	set up mesh in the whole ※3	ATOMRAYS JS	0.5 kg/㎡
		Reinforcing cloth(ex,mesh)	1.0 m/㎡
		ATOMRAYS JS	0.3 kg/㎡
3	waterproof layer	ATOMRAYS JS	0.5 kg/㎡
4		ATOMRAYS JS	0.5 kg/㎡
5	heat shielding waterproof layer	ATOMRAYS JS Thermo ※4	0.5 kg/㎡
6	topcoat ※5	RAYS-TOP SG	0.13 kg/㎡
7		RAYS-TOP SG	0.13 kg/㎡



ATOMRAYS JS D Method (in the case of concrete)

remove the waterproof layer of rise part
ATOMRAYS JS T-D Method THERMO

	process	Materials	Quantity of application
1	preparation of surfaces ※2	Best-sealer K with K powder	0.18 kg/㎡
2	set up mesh in the whole	ATOMRAYS JS	0.5 kg/㎡
		Reinforcing cloth(ex,mesh) ※3	1.0 m/㎡
		ATOMRAYS JS	0.3 kg/㎡
3	waterproof layer	ATOMRAYS JS	0.4 kg/㎡
4	heat shielding waterproof layer	ATOMRAYS JS Thermo ※4	0.4 kg/㎡
5	topcoat ※5	RAYS-TOP SG	0.13 kg/㎡
6		RAYS-TOP SG	0.13 kg/㎡

Not remove the waterproof layer of rise part note1

	process	Materials	Quantity of application
1	preparation of surfaces	Nonbleed S ※1	0.1 kg/㎡
2	set up mesh in the whole	ATOMRAYS JS	0.5 kg/㎡
		Reinforcing cloth(ex,mesh) ※3	1.0 m/㎡
		ATOMRAYS JS	0.3 kg/㎡
3	waterproof layer	ATOMRAYS JS	0.4 kg/㎡
4	heat shielding waterproof layer	ATOMRAYS JS Thermo ※4	0.4 kg/㎡
5	topcoat ※5	RAYS-TOP SG	0.13 kg/㎡
6		RAYS-TOP SG	0.13 kg/㎡

※1 The groundwork in the case of an urethane and polyvinyl chloride sheet,Please apply the thing which diluted Nonbleed S in Composition thinner No. 2 at 1:1 for prevention plasticizer shift.
※2 In the case of concrete and mortar, the groundwork can use Best-sealer K(0.18kg/㎡) , too. When you roughen the groundwork, please use Shitajichouseizai C(1.0kg/㎡).
※3 Please choose it among Bolance, Colback, Polycloth.
※4 In the case of a general method of construction, I use all ATOMRAYS JS for waterproof layer
※5 can use various topcoats. Please confirm a topcoat list.
note1 In the case of not remove the waterproof layer of rise part,please refer.

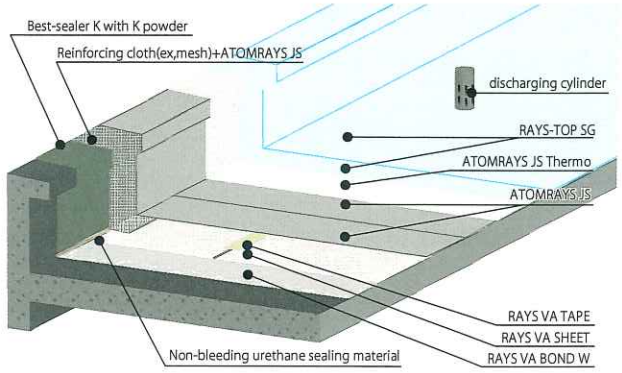
equal waterproofing performance with X-1
(Urethane waterproofing) Water-based Method

2. ATOMRAYS JS VA Method Method for adhesion by adhesive

[correspondence groundwork] Asphalt waterproofing(concrete), Exposure asphalt waterproofing

(flat ground) ATOMRAYS JS D Method THERMO
Asphalt waterproofing(concrete)

	process	Materials		Quantity of application
1	preparation of surfaces	Shitajichouseizai C		suitably
2	put a air-permeable buffer seat with adhesive	RAYS VA BOND W		0.35 kg/㎡
		RAYS VA SHEET		1.0 m/㎡
		RAYS VA TAPE		1.0 m/m
3	waterproof layer	ATOMRAYS JS		0.5 kg/㎡
4		ATOMRAYS JS		0.5 kg/㎡
5	heat shielding waterproof layer	ATOMRAYS JS Thermo	※1	0.5 kg/㎡
6	topcoat ※2	RAYS-TOP SG		0.13 kg/㎡
7		RAYS-TOP SG		0.13 kg/㎡



ATOMRAYS JS VA Method (in the case of concrete)

remove the waterproof layer of rise part
ATOMRAYS JS T-D Method THERMO

	process	Materials		Quantity of application
1	preparation of surfaces ※3	Best-sealer K with K powder		0.18 kg/㎡
2	set up mesh in the whole	ATOMRAYS JS		0.5 kg/㎡
		Reinforcing cloth(ex,mesh)	※4	1.0 m/㎡
		ATOMRAYS JS		0.3 kg/㎡
3	waterproof layer	ATOMRAYS JS		0.4 kg/㎡
4	heat shielding waterproof layer	ATOMRAYS JS Thermo	※1	0.4 kg/㎡
5	topcoat ※2	RAYS-TOP SG		0.13 kg/㎡
6		RAYS-TOP SG		0.13 kg/㎡

Not remove the waterproof sheet of rise part note1

	process	Materials		Quantity of application
1	preparation of surfaces	Nonbleed S	※5	0.1 kg/㎡
2	set up mesh in the whole	ATOMRAYS JS		0.5 kg/㎡
		Reinforcing cloth(ex,mesh)	※4	1.0 m/㎡
		ATOMRAYS JS		0.3 kg/㎡
3	waterproof layer	ATOMRAYS JS		0.4 kg/㎡
4	heat shielding waterproof layer	ATOMRAYS JS Thermo	※1	0.4 kg/㎡
5	topcoat ※2	RAYS-TOP SG		0.13 kg/㎡
6		RAYS-TOP SG		0.13 kg/㎡

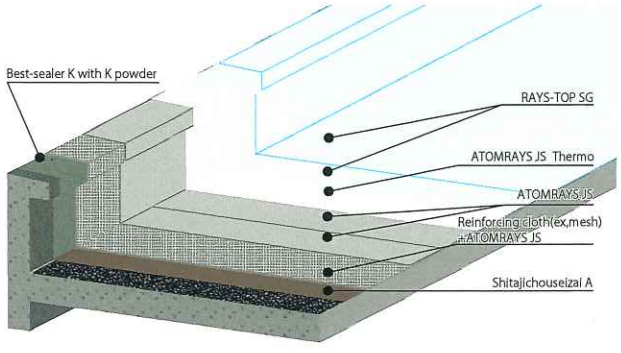
※1 In the case of a general method of construction, I use all ATOMRAYS JS for waterproof layer
※2 Can use various topcoats. Please confirm a topcoat list .
※3 When you roughen the groundwork, please use Shitajichouseizai C(1.0kg/㎡).
※4 Please choose it among Bolance, Colback, Polycloth.
※5 The groundwork in the case of an urethane and polyvinyl chloride sheet, Please apply the thing which diluted Nonbleed S in Composition thinner No. 2 at 1:1 for prevention plasticizer shift.
note1 In the case of not remove the waterproof layer of rise part, please refer.

3. ATOMRAYS JS A Method set up mesh in the whole

[correspondence groundwork] Exposure asphalt waterproofing

(flat ground) ATOMRAYS JS A Method THERMO

	process	Materials		Quantity of application
1	preparation of surfaces	Shitajichouseizai A		1.0 kg/㎡
2	set up mesh in the whole	ATOMRAYS JS		0.5 kg/㎡
		Reinforcing cloth(ex,mesh)	※1	1.0 m/㎡
		ATOMRAYS JS		0.3 kg/㎡
3	waterproof layer	ATOMRAYS JS		0.5 kg/㎡
4		ATOMRAYS JS		0.5 kg/㎡
5	heat shielding waterproof layer	ATOMRAYS JS Thermo	※2	0.5 kg/㎡
6	topcoat ※3	RAYS-TOP SG		0.13 kg/㎡
7		RAYS-TOP SG		0.13 kg/㎡



ATOMRAYS JS A Method (remove rising part)

remove the waterproof layer of rise part
ATOMRAYS JS T-D Method THERMO

	process	Materials		Quantity of application
1	preparation of surfaces ※4	Best-sealer K with K powder		0.18 kg/㎡
2	set up mesh in the whole	ATOMRAYS JS		0.5 kg/㎡
		Reinforcing cloth(ex,mesh)	※1	1.0 m/㎡
		ATOMRAYS JS		0.3 kg/㎡
3	waterproof layer	ATOMRAYS JS		0.4 kg/㎡
4	heat shielding waterproof layer	ATOMRAYS JS Thermo	※2	0.4 kg/㎡
5	topcoat ※3	RAYS-TOP SG		0.13 kg/㎡
6		RAYS-TOP SG		0.13 kg/㎡

Not remove the waterproof layer of rise part note1

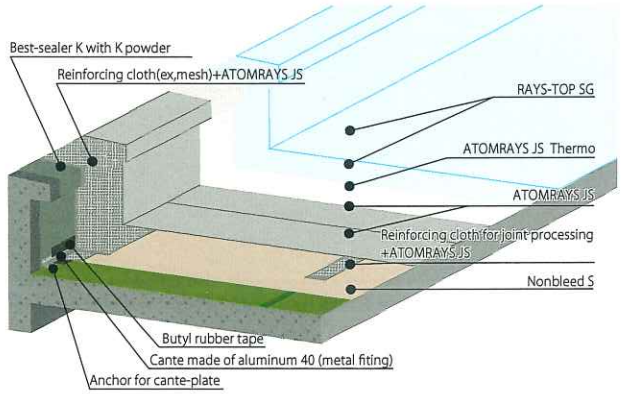
	process	Materials		Quantity of application
1	preparation of surfaces	Shitajichouseizai A		1.0 kg/㎡
2	set up mesh in the whole	ATOMRAYS JS		0.5 kg/㎡
		Reinforcing cloth(ex,mesh)	※1	1.0 m/㎡
		ATOMRAYS JS		0.3 kg/㎡
3	waterproof layer	ATOMRAYS JS		0.4 kg/㎡
4	heat shielding waterproof layer	ATOMRAYS JS Thermo	※2	0.4 kg/㎡
5	topcoat ※3	RAYS-TOP SG		0.13 kg/㎡
6		RAYS-TOP SG		0.13 kg/㎡

※1 Please choose it among Bolance, Colback,Polycloth
※2 In the case of a general method of construction, I use all ATOMRAYS JS for waterproof layer
※3 Can use various topcoats Please confirm a topcoat list
※4 When you roughen the groundwork, please use Shitajichouseizai C(1.0kg/㎡) .
note1 In the case of not remove the waterproof layer of rise part, please refer.

4. ATOMRAYS JS S Method set up mesh in the joint
[correspondence groundwork] Exposure waterproofing sheet without remarkable deterioration

(flat ground) ATOMRAYS JS S Method THERMO

	process	Materials	Quantity of application
1	preparation of surfaces	Nonbleed S ※1	0.1 kg/㎡
2	set up mesh in the joint	ATOMRAYS JS	0.1 kg/m
		Reinforcing cloth for joint processing ※2	1.0 m/m
		ATOMRAYS JS	0.06 kg/m
3	waterproof layer	ATOMRAYS JS	0.5 kg/㎡
4		ATOMRAYS JS	0.5 kg/㎡
5	heat shielding waterproof layer	ATOMRAYS JS Thermo ※3	0.5 kg/㎡
6	topcoat ※4	RAYS-TOP SG	0.13 kg/㎡
7		RAYS-TOP SG	0.13 kg/㎡



ATOMRAYS JS S Method

(in the case of polyvinyl chloride seat, remove rising part)

remove the waterproof layer of rise part
ATOMRAYS JS T-D Method THERMO

	process	Materials	Quantity of application
1	preparation of surfaces ※5	Best-sealer K with K powder	0.18 kg/㎡
2	set up mesh in the whole	ATOMRAYS JS	0.5 kg/㎡
		Reinforcing cloth(ex,mesh) ※2	1.0 m/㎡
		ATOMRAYS JS	0.3 kg/㎡
3	waterproof layer	ATOMRAYS JS	0.4 kg/㎡
4	heat shielding waterproof layer	ATOMRAYS JS Thermo ※3	0.4 kg/㎡
5	topcoat ※4	RAYS-TOP SG	0.13 kg/㎡
6		RAYS-TOP SG	0.13 kg/㎡

Not remove the waterproof layer of rise part note1

	process	Materials	Quantity of application
1	preparation of surfaces	Nonbleed S ※1	0.1 kg/㎡
2	set up mesh ※2 in the joint	ATOMRAYS JS	0.1 kg/m
		Reinforcing cloth for joint processing	1.0 m/m
		ATOMRAYS JS	0.06 kg/m
3	waterproof layer	ATOMRAYS JS	0.4 kg/㎡
4	heat shielding waterproof layer	ATOMRAYS JS Thermo ※3	0.4 kg/㎡
5	topcoat ※4	RAYS-TOP SG	0.13 kg/㎡
6		RAYS-TOP SG	0.13 kg/㎡

※1 The groundwork in the case of an urethane and polyvinyl chloride sheet,Please apply the thing which diluted Nonbleed S in Composition thinner No. 2 at 1:1 for prevention plasticizer shift.
※2 Please choose it among Bolance, Colback,Polycloth
※3 In the case of a general method of construction, I use all ATOMRAYS JS for waterproof layer
※4 Can use various topcoats Please confirm a topcoat list
※5 When you roughen the groundwork, please use Shitajichouseizai C(1.0kg/㎡) .
note1 In the case of not remove the waterproof layer of rise part,please refer.

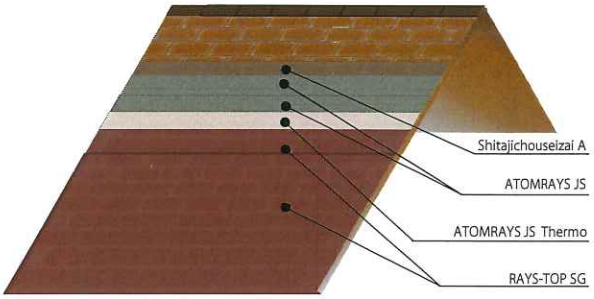
5. ATOMRAYS JS As Method For Asphalt single

[correspondence groundwork]Asphalt single roof

(flat ground) ATOMRAYS JS As Method THERMO

	process	Materials	Quantity of application
1	preparation of surfaces	Shitajichouseizai A	1.5 kg/㎡
2	waterproof layer	ATOMRAYS JS	0.5 kg/㎡
3		ATOMRAYS JS	0.5 kg/㎡
4	heat shielding waterproof layer	ATOMRAYS JS Thermo ※1	0.5 kg/㎡
5	topcoat ※2	RAYS-TOP SG	0.13 kg/㎡
6		RAYS-TOP SG	0.13 kg/㎡

※1 In the case of a general method of construction, I use all ATOMRAYS JS for waterproof layer
※2 Can use various topcoats Please confirm a topcoat list



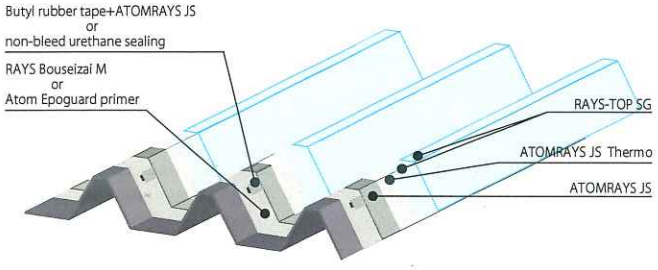
6. ATOMRAYS JS As Method For Sloped Metal roof

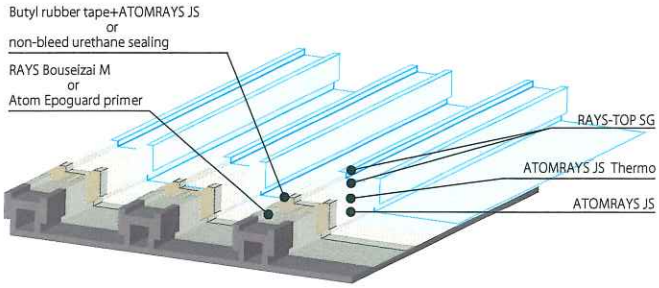
[correspondence groundwork] Sloped Metal roof (ex,Folded plate roof, Batten seam roof)

(flat ground)ATOMRAYS JS M Method THERMO

	process	Materials	Quantity of application
1	Rust prevention treatment	RAYS Bouseizai M ※1 (rust preventive of water-based Acrylic rubber material)	0.3 kg/㎡
2	treatment of joint and Precedent coating ※2	Butyl rubber tape	1.0 m/m
		ATOMRAYS JS	0.06 kg/m
3	waterproof layer	ATOMRAYS JS	0.5 kg/㎡
4	heat shielding waterproof layer	ATOMRAYS JS Thermo ※3	0.5 kg/㎡
5	topcoat ※4	RAYS-TOP SG	0.13 kg/㎡
6		RAYS-TOP SG	0.13 kg/㎡

※1 Can use Atom Epoguard primer,too(0.2kg/㎡)
※2 Can use Non-bleeding urethane sealing material,too
※3 In the case of a general method of construction, I use all ATOMRAYS JS for waterproof layer
※4 Can use various topcoats Please confirm a topcoat list





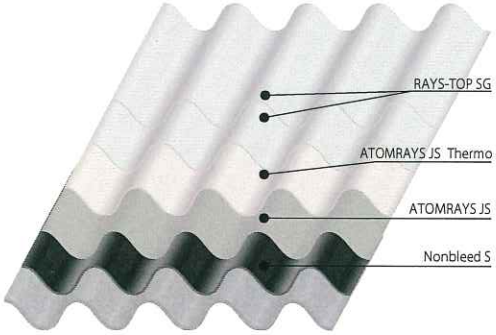
7. ATOMRAYS JS Repair of Slate Method THERMO

[correspondence groundwork]Slate roof

[correspondence groundwork] Slate roof note1

	process	Materials	Quantity of application
1	undercoating	Nonbleed S	0.2 kg/㎡
2	intermediate coating	ATOMRAYS JS	0.5 kg/㎡
3	heat shielding waterproof layer	ATOMRAYS JS Thermo ※1	0.5 kg/㎡
4	topcoat ※2	RAYS-TOP SG	0.13 kg/㎡
5		RAYS-TOP SG	0.13 kg/㎡

※1 In the case of a general method of construction, I use all ATOMRAYS JS for waterproof layer
※2 Can use various topcoats Please confirm a topcoat list
note1 treatment of joint is necessary to get waterproofing performance.

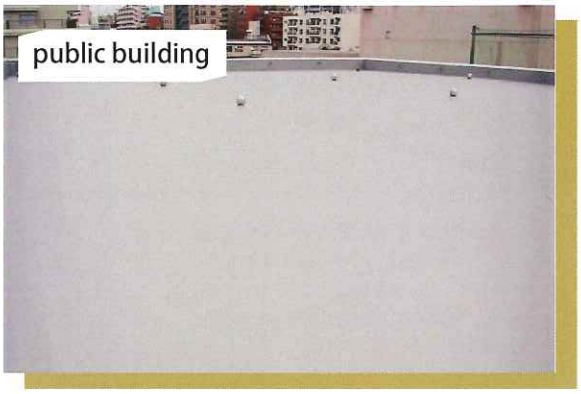


Construction Results

ATOMRAYS JS D Method
(groundwork ; Waterproof Rubber Sheet)

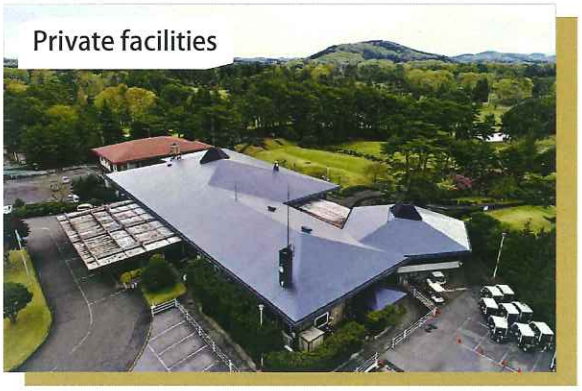
ATOMRAYS JS D Method
(groundwork ; Urethane waterproofing)

ATOMRAYS JS Eco-fix Method
(groundwork ; Waterproof Rubber Sheet)

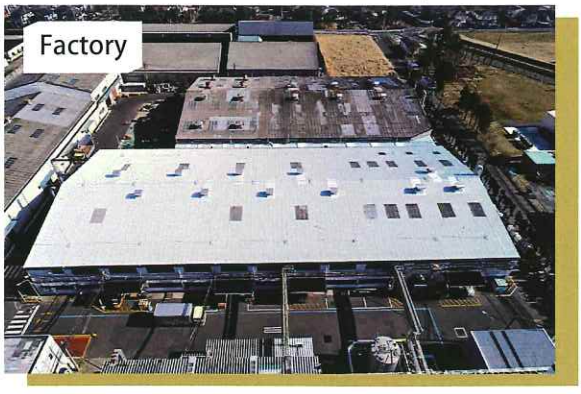


ATOMRAYS JS A Method
(groundwork ; Exposure asphalt waterproofing)

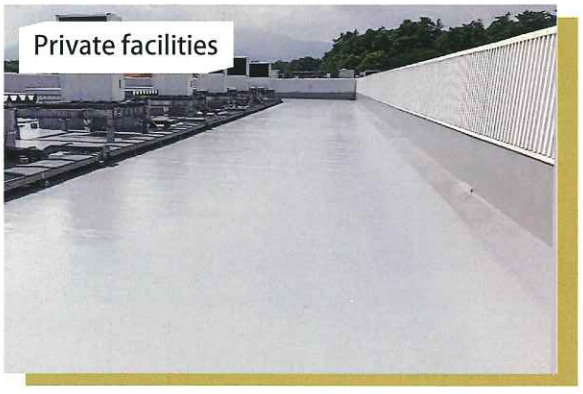
ATOMRAYS JS M Method
(groundwork ; Metal roof)



ATOMRAYS JS As Method
(groundwork ; Asphalt single)



ATOMRAYS JS Repair of Slate Method
(groundwork ; Slate roof)



ATOMRAYS JS D Method
(groundwork ; Polyvinyl chloride waterproof sheet)

List of products

Acrylic Rubber Waterproofing membrane coatings

ATOMRAYS JS (JIS A 6021)

Acrylic Rubber Waterproofing coatings
Water-based ,One-component
USES ;
Waterproofing of the outdoor and indoor
Flat, Rising part common use
package ;16kg/Metal can color; gray
grade of formaldehyde defusion ;
F☆☆☆☆

ATOMRAYS JS Thermo(JIS A 6021)

Acrylic Rubber Waterproofing coatings
Water-based ,One-component
USES ;
Waterproofing of the outdoor and indoor
Flat, Rising part common use
package ; 16kg/Metal can color ; Whitish
grade of formaldehyde defusion ;
not applicable

Topcoat

RAYS-TOP SG

Water-based acrylic urethane
(one-component)
USES ; heat shielding(high gloss)
package ; 15kg/Metal can
grade of formaldehyde defusion ;
F☆☆☆☆

RAYS-TOP SI

Water-based acrylic silicon(one-component)
USES ;heat shielding and High durability
(high gloss)
package ; 15kg/Metal can

RAYS-TOP H

Water-based acrylic (one-component)
USES ; Anti-slipping (contain sand)
package ; 20kg/Metal can
grade of formaldehyde defusion ;
F☆☆☆☆

RAYS-TOP VR

Weak-solvent based acrylic urethane
(2component)
USES ;
heat shielding Super high durability
High durability
package ; Main agent 12kg/Metal can
Hardener 2kg/Metal can

RAYS-TOP L

Water-based acrylic (one-component)
USES ; mat finish
package ; 16kg/Metal can
grade of formaldehyde defusion ;
F☆☆☆☆

Material for substrate conditioning

Shitajichouseizai A

Polymer cement-based filler
Water-based Ethylene-vinyl acetate resin
USES ; substrate conditioning
Temporary waterproofing
package ; Main agent 18kg/Metal can
powder 14kg/box × 3
mixture ratio;
Main agent : powder : water = 3 : 7 : 1

Shitajichouseizai C

Polymer cement-based filler
Water-based acrylic resin
USES ; substrate conditioning
package ; Main agent 18kg/Metal can or
4kg/plastic container
powder 25kg/paper bag
mixture ratio;
Main agent : powder : water = 4 : 25 : 7

Best-sealer K / K powder

Water-based Cationic sealer/powder
USES ; under coating for concrete
package ; Best-sealer K 16kg/Metal can
K powder 3.2kg/Metal can

Nonbleed S

solvent type urethane primer
USES ; preventing plasticizer migration
surface strengthning
package ; 16kg/Metal can

RAYS Bouseizai M

Acrylic Rubber Water-based ,One-component
USES ; rust preventive for metal roof
package ; 16kg/Metal can

Atom Epoguard primer

Weak-solvent based epoxy(2component)
USES ; rust preventive for metal roof
package ; Main agent 12.5kg/Metal can
Hardener 2.5kg/Metal can

SUBSIDIARY MATERIAL

Polycloth

Mesh made of polyester
USES ; Reinforcing cloth
package ;
1.02m×50m
15 ㎝ ×50m
(joint processing)

Colback

Reinforcing cloth of polyeste
USES ; Reinforcing cloth
package ;
1.05m×100m
15 ㎝ ×100m (joint processing)

Bolance

Reinforcing cloth of polyester
USES ; Reinforcing cloth
package ;
1.02m×100m
15 ㎝ ×100m
(joint processing)

RAYS VA BOND W

Water-based acrylic bond
USES ;
put a air-permeable buffer seat
package ; 18kg/Metal can

RAYS VA SHEET

Reinforcing cloth of polyester
USESair-permeable buffer seat
package ; 1.0m×50m

The figure which enlarged ▶▶

RAYS VA TAPE

Tape with the breathability
USES ; joint processing
package ; 5cm×50m

Mechanical sheet

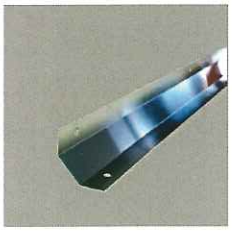
modified asphalt sheet
USES ;
air-permeable buffer seat
with adhesive
package ; 1.04×15.8m
thickness 1.5mm
bonded zone ▶▶

Mechanical anchor 40/70 Corrosion resistance aluminum

for seat fixation
USES; for seat fixation
size ; flange φ30 ㎜ length 40/70 ㎜
diameter 7.5mm
box containing 500
package ; box containing 500

Cante made of aluminum 40 (metal fiting)

Corrosion resistance aluminum
USES ; for seat fixation
size ; width 30-40-30mm
length 2m
thickness 0.8mm
package; 10 piece



Anchor for cante-plate

Corrosion resistance aluminum
USES ; for cante and plate fixation
size ; for cante and plate fixation
flange φ13 ㎜ length 40 ㎜
diameter 5.5mm
package; box containing 100

Plate of aluminum 30

Corrosion resistance aluminum
USES ; for seat fixation
size ; width 30mm
length 2m
thickness 3.3mm
package ; 20 piece

Butyl rubber tape

Butyl rubber
USES ; joint processing
package; 75/100mm×20m

Senjyousui-kokazai

Special acrylic and
natural organic matter
USES ; caking of waste water
package ; 5kg/poly bag

Composition thinner No. 50

week-solvent
USES;
Dilution thinner of RAYS-TOP VR and
Atom Epoguard primer
package ; 16L/Metal can

Composition thinner No. 2

Strong-solvent
USES;
Dilution thinner of Nonbleed S
package;
16L/Metal can

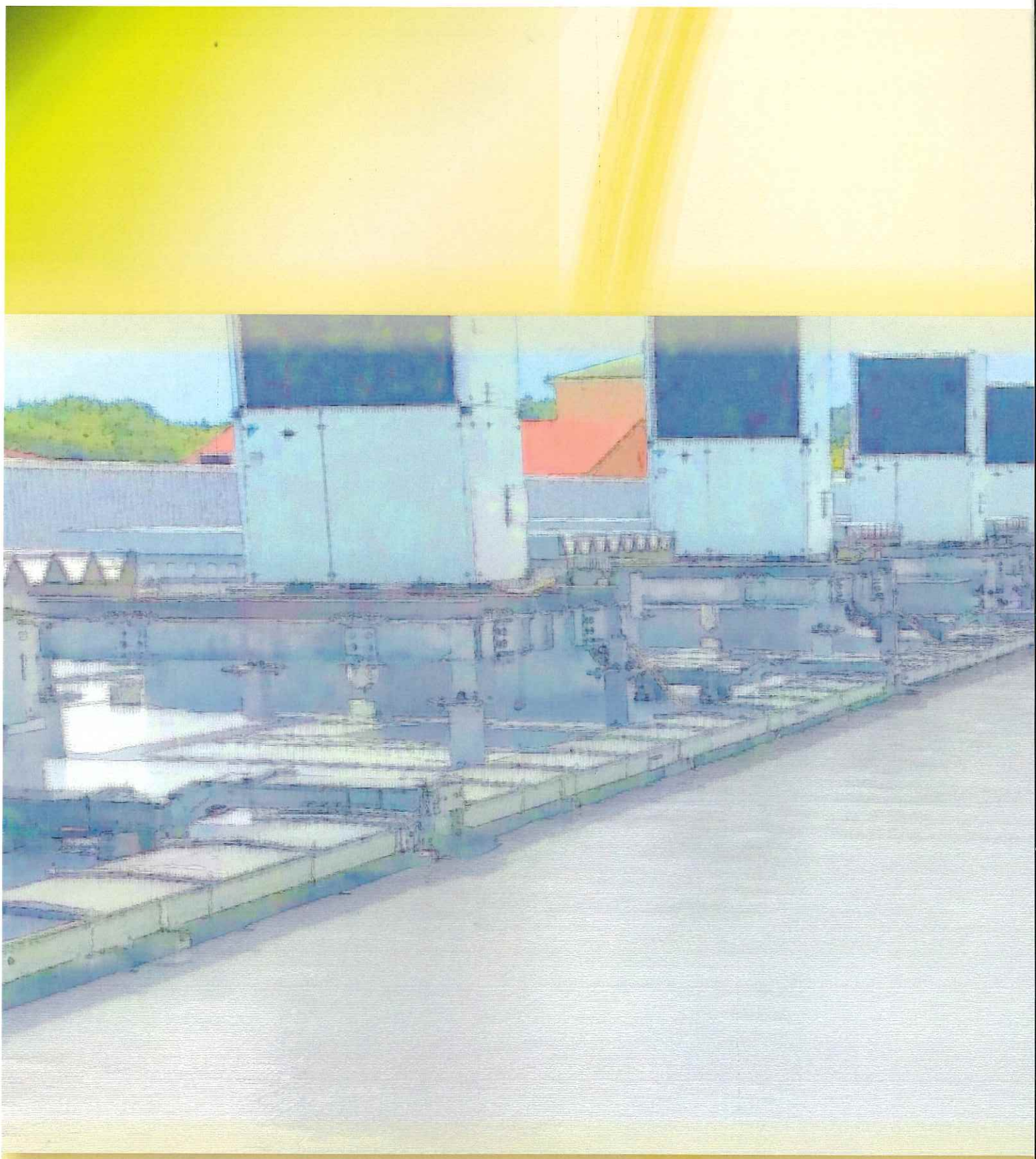
Test result of JIS A 6021

As of November,2021

Test method				standard value (JIS A 6021)	ATOMRAYS JS
Tensile performance	Tensile strength N/㎟		23℃	more than 1.3	1.4
			−20℃	more than 1.3	6.2
			60℃	more than 0.40	0.82
	Retention of elongation at break %		23℃	more than 300	580
	Tensile product N/㎜		23℃	more than 120	170
	Retention of clamp intermedical elongation at break %		23℃	more than 180	340
			−20℃	more than 70	150
			60℃	more than 150	290
Tear performance	Tear strength N/㎜			more than 6.0	11
Dimensions stability after the heat treatment	Degree of shrinkage %			less than 1.0 more than -1.0	-0.8
Tensile performance after the deterioration processing	Tensile strength ratio %		Heat treatment	more than 80	141
			Weathering test	more than 80	174
			Alkali treatment	more than 60	158
			Acid treatment	more than 40	101
	Retention of elongation at break %		Heat treatment	more than 200	480
			Weathering test	more than 200	300
			Alkali treatment	more than 200	330
			Acid treatment	more than 200	400
State after the deterioration processing (maintained it with stretching it out)			Heat treatment	not crazing and remarkable transformation	acceptance
			Weathering test treatment	not crazing and remarkable transformation	acceptance
			Ozone treatment	not crazing and remarkable transformation	acceptance
Solid %				—	66.8

I carry out an examination based on JIS A 6021
It is an actual value. I do not guarantee a value.

MEMO



Contact

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