Specialist for new technology

Robyn's Paint

robynspaint.co.uk

4 Health

Silver Ion Added
Anti-microbial & Anti-viral Coaings

Hospital, School, Business Centers, Agriculture & Food Industry

ISO 9001/ ISO 10002 / ISO 14001 / ISO 45001

We produce tomorrows technology, not todays

Anti-microbial & Anti-viral Coaing

Environment cleaned from the disease maker microorganisms, is becoming increasingly important for the all the products present in places we live and work. The recent technological progress has proved that metal ions, such as Ag+1, Cu+2, Zn+2, diffuse to the metabolisms of the bacteria and counteract their enzymes.

Silver is one of the oldest antimicrobial agents of record. Silver ions are thought to inhibit bacterial enzymes, interfere with electron transport and bind to DNA. The more common use of silver depends on its being the most resistant metal against the bacteria, not employing any harmful effects to the body, being more cheaper than many others and easy production process. The most widely used silver compound being used in medical clinic products is silver

This is because silver nitrate releases its ions most fast.
Despite strong effects of the silver ion against bacteria, fungi, algae and moulds, it has been proved that zinc ions are more effective on fungi and moulds even possible weaker effects on bacteria and algae. Therefore silver and zinc metal ions compounds are used thanks to their stronger effect spectrums.

In antimicrobial products there is a need for a carrier body and metal ions shall join the structures easily. Thus, metal ions may enter the system and demonstrate their effects on bacteria. Considering that many of the chemical cleaning methods harm the human health. These kind of materials may directly contact with human they should demonstrate biological harmony. Previous studies have shown that such materials employ a high level of biological adaptation. They are being used in many parts of human body through surgery requiring implantations.

99,9 % Effective

- Anti-microbial and anti-viral effective against harmful viruses
- Anti-fungus and mold property
- Superior Cleanable and can be wiped.
- Near zero VOC during application and after painting, Odourless , Breathable
- Ammonia-free
- Non-toxic (does not contain lead, mercury and heavy metals)
- Environmentally friendly paint
- Long lasting colors
- Highly recommended for use on interiors such as childcare, kindergarten, clinics, hospi

medical facilities and commercial buildings such as offices and warehouses.

Why Robyn's 4 Health, Silver ion added Paints ?

The antibacterial and antifungal characteristics provided by the metal ion added antimicrobial products to the paints should not be confused with the bactericides and fungicides which are being used especially in paint formulas. Formula included organic based bactericides and fungicides provide inbox protection and generally paint film protection. Despite the use of these organic materials some microorganisms may contact to the paint film surface where some microorganisms do so. Some types of these organics effect areas (inhibition zone) out of the paint film, that is to say expanding chemically out of the film, which results in unprotected film and generating danger for many other living creatures other than the targeted ones

The effects 99,9% of Robyn's 4 Health Paints on the microorganism's types are given as below;

BACTERIA	ALGAE	YEASTS	MOULDS
Bacillus Subtilis Escherichia Coli Proteus Vulgaris Enterobacter Aerogenes Pseudomonas Aeruginosa Staphylococcus Aureus	Chlorella Pyrenoldosa Anabaena Cylindrica	Candida Albicans Saccharomyces Cerevisiae	Aspergillus Niger Chaetomium Globosum Penicillium Funiculosum Ulocladium Consortiale

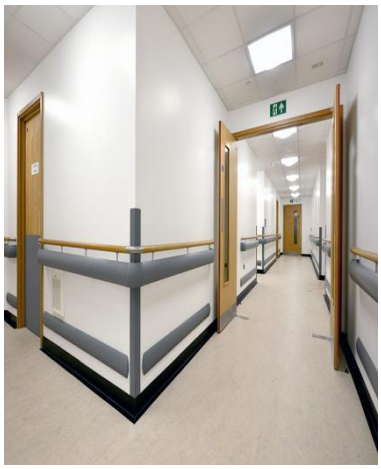
4H-220 / Satin - Wall & Ceiling Paint

General Characteristics: It contains silver and zinc ions, water based anti-microbial and anti-viral paints for wall and ceiling.

Satin, semi gloss surface
Cleanable and can be wiped. Long-life nano technological structure.
Alkali and chemical resistance.
Odourless , Less VOC , Breathable
Color never fades, does not crack or flake away.

Application: Robyn's Binder Primer is applied one layer.
After the application, dilute the paint 15% with water and apply two coats.
Drying Period (20°C): Waiting period between the layers for drying is 6 hours.
Complete Drying : 24 hours
Consumption: Binder Primer Undercoat; 0,100. lt/m2 for one coat
Paint ; 0,200 L/m2 for two coats

4H-223 / Profesionel - Matt Wall & Ceiling Paint



General Characteristics: It contains silver and zinc ions, water based anti-microbial and anti-viral paints for wall and ceiling.

Matt surface
Long-life nano technological structure.
Alkali and chemical resistance.
Odourless , Less VOC , Breathable
Color never fades, does not crack or flake away.

Application: Robyn's Binder Primer is applied one layer. After the application, dilute the paint 15% with water and apply two coats.
Drying Period (20°C): Waiting period between the layers for drying is 6 hours.
Complete Drying : 24 hours
Consumption: Binder Primer Undercoat; 0,100 L/m2 for one coat
Paint ; 0,250 lt/m2 for two coats

4H-370 / Epoxy Paint - Floor & Walls

General Characteristics: Contains silver and zinc ions, Solvent Free Epoxy based anti-microbial and anti-viral floor paint.

Cleanable and can be wiped.
Highly resistant to a lot of chemicals, oil and sea water and corrosion.
Self-levelling, used in plants and industrial sites in concrete, floors.

Application: The surface must be cleaned from dust, oil, dirt and corrosion which will decrease adherence
Main material is mixed with hardener by 4:1 ratio (weight) and apply min. two coats.
Drying Period (20°C): Pot life is approximately 45 minutes.
Waiting period between the layers for drying is 6 hours
Complete Drying : 4 days
Consumption: 0,800 Kg/m2 for one coat

4H-385 / Epoxy Clear Coat - Floor & Walls

General Characteristics: It contains silver and zinc ions.
Solvent Free Epoxy based Clear Coating for anti-microbial and anti-viral floors.

Washable and can be wiped.
Highly resistant to a lot of chemicals, oil and sea water and corrosion.
Self-levelling, used in plants and industrial sites in concrete, floors.

Application: Main material is mixed with hardener by 4:1 ratio (weight) and apply min. two coats.
Drying Period (20°C): Pot life is approximately 45 minutes.
Waiting period between the layers for drying is 8 hours.
Complete Drying : 4 days
Consumption: 0,600 Kg/m2 for one coat

4H-511 / Clear Lak - Painted – Metal – Plactic Surfaces

General Characteristics: It is a biological solution contains silver and zinc ions

Interior, Exterior painted or none painted walls,.
Plastic and metal surface.
It is not a paint, clear solution, penetrating rapidly and deeply.
It is water-based and environment-friendly.

Application : Interior and exterior walls mineral based surface should be wiped with a dry fabric after cleaning with a wet
hard wire brush. It is applied at least for 2-3 times by a brush or a roll certainly without reducing with the surface 4H-511.
Never use by spraying. Can be apply directly to metal and plastic surface .
Drying Period (20°C): Waiting period between the layers is 2 hours.
Complete Drying : 12 hours
Consumption: 0,150 L/m2 for one coat

4H-865 / Biolojik Solusion

General Characteristics: It is a cleaning biological solution against organic formations formed in Interior and Exterior walls. It is a solution preparing an appropriate floor to paint by providing cleaning and protection of the painted in advance or unpainted surfaces with its characteristics penetrating rapidly and deeply.
It is water-based and environment-friendly.

Application : Interior and exterior walls mineral based surface should be wiped with a dry fabric after cleaning with a wet hard wire brush. It is applied at least for 2 times by a brush or a roll certainly without reducing with the surface 4H-865. Never use by spraying.
After applying 4H-385, wall paint is recommended.
Drying Period (20°C): Waiting period between the layers is 2 hours. Complete Drying : 12 hours
Consumption: 0,150 lt/m2 for one coat

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EKOTEKS

REPORT

1032075

REPORT NUMBER:	1032075
RECEIPT DATE:	18.06.2010
ISSUE DATE:	25.06.2010
BUYER NAME:	-
CLIENT NAME:	ROBYN'S PAINT / 4 HEALTH
ADRESS:	47 BEDFORD ST. LONDON WC2E 9HA
CONTACT PERSON:	MELINDA KELECİ

SAMPLE DESCRIPTION:	One sample of dye sample. (WALL& CEILLING PAINT)
SAMPLING:	Not specified.
ORDER NUMBER:	-
ARTICLE NUMBER:	-
END-USE:	-
CARE LABEL:	Not given.

REQUIRED TESTS	**RESULT**	**COMMENTS**
ECOLOGICAL TESTS		
Antibacterial Activity(Staphylococcus aureus)	-	
Antibacterial Activity(Eschericia coli)	-	
Antibacterial Activity(Klebsiella pneumoniae)	-	

No requirements were given.
Tests were performed between 18.06.2010 – 25.06.2010.

REMARK: This report can not be reproduced except in full, without written approval of the laboratory. The results given in this report belong to the received sample. Original samples are kept for 6 months and all technical records are kept for 5 years unless otherwise specified. The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. Tests marked (*) in this report are not included in the DAP Accreditation Scedule for this Laboratory.

Belkis Avcı
Supervisor

Controlled by
Melek Zengin

Sevim A. Razaq
Technical Manager

EKOTEKS LABORATUVAR VE GÖZETİM HİZMETLERİ LTD. ŞTİ.
Esenyurt Firuzköy Bulvarı No: 29 34325 Avcılar İstanbul / TÜRKİYE

EKOTEKS

TEST RESULTS

ANTIBACTERIAL ACTIVITY : ASTM E2149:2001

Results (log,cfu/sample)				
	After incubation (37 °C)			
Contact Time	1h	6h	18h	24h
4.95				-

Bactericidal activity	**Result**	**Requirement**
Reduction (%), for 24h	**99.9 % Effective**	-

Microorganism	*Klebsiella Pneumoniae ATCC 4352 (Gram(-))*
Size of Sample	1g
Number of washing	-
Washing method	-
Incubation time	48h

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EKOTEKS

TEST RESULTS

ANTIBACTERIAL ACTIVITY : ASTM E2149:2001

Results (log,cfu/sample)				
	After incubation (37 °C)			
Contact Time	1h	6h	18h	24h
5.2				-

Bactericidal activity	**Result**	**Requirement**
Reduction (%), for 24h	**99.9 % Effective**	-

Microorganism	*Escherichia coli ATCC 8739 (Gram(-))*
Size of Sample	1g
Number of washing	-
Washing method	-
Incubation time	48h

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EKOTEKS

TEST RESULTS

ANTIBACTERIAL ACTIVITY : ASTM E2149:2001

Results (log,cfu/sample)				
	After incubation (37 °C)			
Contact Time	1h	6h	18h	24h
4.84				-

Bactericidal activity	**Result**	**Requirement**
Reduction (%), for 24h	**99.9 % Effective**	-

Microorganism	*Staphylococcus aureus ATCC 6538 (Gram(+))*
Size of Sample	1g
Number of washing	-
Washing method	-
Incubation time	48h

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ÇEVRE ENDÜSTRİYEL ANALİZ LABORATUVARI

ÇEVRE ENDÜSTRİYEL ANALİZ LABORATUVAR HİZM. TİC. A.Ş.

TEST REPORT

Report No. : **15029** Date: 14/06/2013

Applicant : DERİN BOYA VE DENİZCİLİK SAN.TİC.LTD.ŞTİ.

Address : İSTANBUL BOYA VE VERNİKÇİLER SANAYİ SİTESİ NO:20
ORHANLI - TUZLA İSTANBUL

Sample : 4 Health Epoxy Hygienic Covering/Solvent-Free/A-Major Component

Sample Package : Original tin box

Sample Amount : 1 piece

Sample Preservation Technique : -

Sample Carrying Conditions : -

Sample Receiving Time : 06/06/2013 Hrs: 15:00

Analysis Beginning Time : 07/06/2013 Hrs: 15:15

Analysis Completion Time : 14/06/2013

Following test results were obtained from the specimen which was delivered to Çevre Laboratory by hand to hand;

Tests	Unit	Finding	Limit Range	LR Source	Method	Information
Cadmium	%	<0.0001	Max. 0.001	1	ICP-MS	1
Lead	%	<0.0001	Max.0.05	1	ICP-MS	1
Arsenic	%	0.00024	Max. 0.03	1	ICP-MS	1
Antimony	%	<0.0001	Max. 0.05	1	ICP-MS	1

Source of Limit Ranges 1 Türk Gıda Kodeksi Gıda İle Temas Eden Madde ve Malzemeler Yönetmeliği

Method ICP-MS: Inductively Coupled Plasma Mass Selective Detector

Information 1) After acidic digestion

Notes 1. This report shall not be used official purposes related to Enviromental Regulations.

End of Report

Nisa BEKMEZCİ
Laboratory Chief

Approved by
14/06/2013
Assoc.Prof.Dr.Aysun YILMAZ
Laboratory Manager

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