



UFlex[®]

**Waterborne
Polyurethane**

CLEAN & ANTIMOLD WALL SYSTEM

(PORCELAIN GLAZED EFFECT)



UFlex® Clean & Anti-Mold Wall System (Porcelain Glaze Effect) Main Advantages



Anti-mold and anti-bacterial

0 level anti-mold, bacterial killing rate of 99.9% , effective inhibition of germs and mold growth.



Anti-graffiti

Dense coating film, spray paint, ink, dyes and other organic matter can not penetrate; A gentle rub can remove it.



Clean odor and Eco-friendly

Zero VOC, zero formaldehyde, zero benzene, no odor
France A+ certification, guarding the green environment.



Porcelain effect

The coating film is dense, high hardness and scratch resistance.



Resistant to humid environments

Resistant to high-pressure hot and warm water flushing.
Chemical corrosion resistance, no foaming, no peeling, no discoloration.



Class A2 fireproof

Effectively block the contact between open flame and building substrate structure.
Delay the spread of fire and reduce the discharge of harmful substances.



Super stain resistant

Resistant to multiple stains, can be easily wiped with a rag.
No traces, no loss of light.



Aging resistance

Ultraviolet radiation 1000 hours no yellowing, no chalking, the service life of more than 10 years.

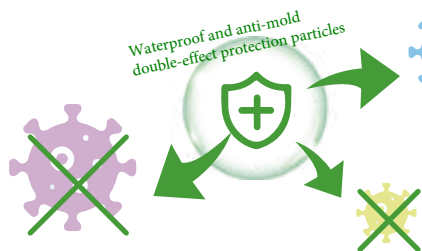


Impact-resistant

Falling impact through 1kg 100cm height.

1 Mildew and antibacterial

- Grade 0 mildew resistant
- Integrated sterilization and mildew removal treatment on the bottom surface
- The two-component mesh solidifies the film, and the coating film is dense and inhibits mold for a long time
- Contains waterproof and mildew-proof dual-effect protective particles to prevent rainwater from penetrating
- Prevent the leaching of anti-mildew and antibacterial factors, long-lasting anti-mildew and antibacterial



Serial No.	Test item	Technical indicators	Results
1	Anti-mold grade	Lv.0	Lv.0
2	Anti-mold grade after boiling in hot water at 80°C for 1000 hours	Lv.0	Lv.0
3	Anti-mold grade after 1000 hours of UV irradiation	Lv.0	Lv.0
4	Escherichia coli (E. coli)	Kill rate 99.9%	Kill rate 99.9%
5	Staphylococcus aureus	Kill rate 99.9%	Kill rate 99.9%

According to GB/T1741-2020 "Test method for determining the resistance of paints film to mold" grading standards are as follows



2 Resistant to hot and cold cycles

- Steamed at 80°C for 1000 hours without abnormality
- Resistant to 120°C hot steam
- Tested by 30 cycles of high and low temperature changes (-20°C, 60°C, 100°C)

Water-based epoxy anti-mold wall system 80 °C hot water cooking 240 hours coating film drum, blistering, yellowing;
Ordinary anti-mold coating wall system 80 °C hot water cooking 240 hours coating film blistering, bulging, yellowing, peeling.

Coating system

UFlex® Clean & Anti-Mold Wall System

Waterborne Epoxy Anti-Mold Wall System

General Anti-Mold Coating Wall System

80°C
Hot water before steaming

80°C
After steaming in hot water



3 Resistant to high-pressure warm water flushing

Serial No.	Comparison items	UFlex® Clean & Anti-Mold Wall System	General Anti-Mold Coating Wall System
1	Pencil hardness	2H	6B
2	Washable Resistance	≥300000 times without showing the bottom	≥300000 times without showing the bottom
3	Adhesion	1.08 Mpa	0.20Mpa
4	Boiled at 80°C	21000 hours, no blistering, no cracking, no flaking	≤240 hours, blistering, cracking, peeling
5	Impact resistance	Falling impact through 1kg 100cm height	fail to pass
6	Resistant to high-pressure water flushing	Resistant to 50 kg force high-pressure water gunflushing, no foaming, no peeling, no discoloration	fail to pass

UFlex[®] Clean & Anti-Mold Wall System (Porcelain Glaze Effect) Main Advantages

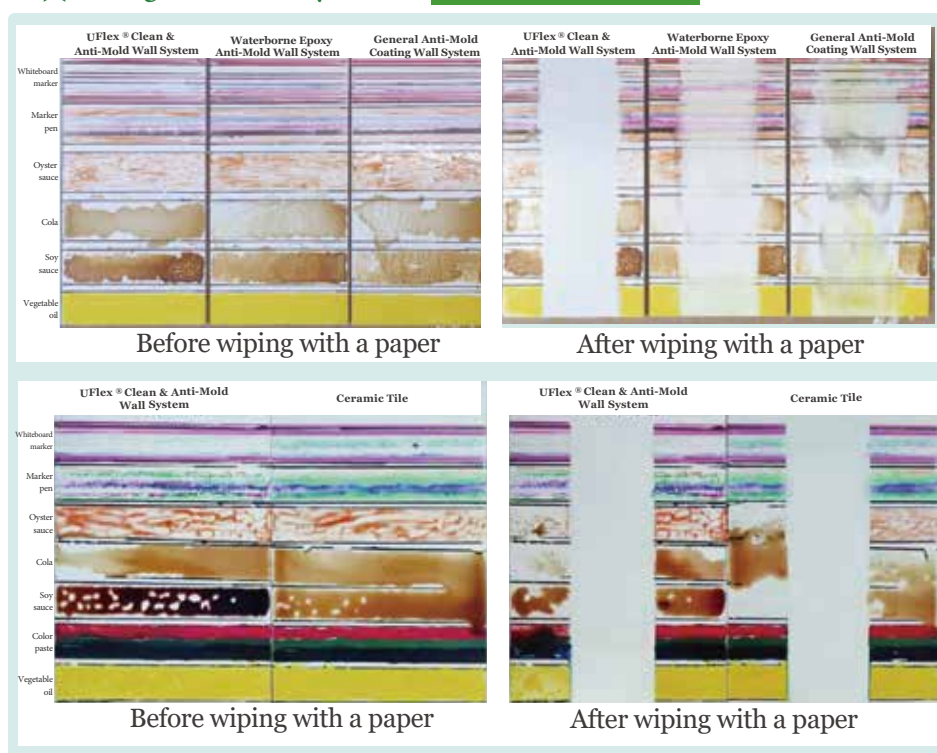
4 Super stain resistant

Serial No.	Test item	Technical indicators	Test results
1	Soy sauce	Wipe with a rag without traces or loss of light	good
2	Vinegar	Wipe with a rag without traces or loss of light	good
3	Citric acid	Wipe with a rag without traces or loss of light	good
4	Lard	Wipe with a rag without traces or loss of light	good
5	ketchup	Wipe with a rag without traces or loss of light	good
6	Coffee	Wipe with a rag without traces or loss of light	good
7	Whiteboard marker	Wipe with a rag without traces or loss of light	good

5 Chemically resistant

Serial No.	Test item	Technical indicators	Test results
1	Water Resistance	No abnormality for 1000 h	pass
2	Alkaline resistance (5% sodium hydroxide)	No abnormality for 480 h	pass
3	Salt water resistance (5% sodium chloride)	No abnormality for 480 h	pass
4	Hydrogen peroxide resistant (5%)	No abnormality for 96 h	pass
5	Chlorine resistant (5%)	No abnormality for 480 h	pass

★ Anti-graffiti and easy to clean Anti-graffiti special surface layer



The Waterborne Epoxy Anti-Mold Wall System and the General Anti-Mold Coating Wall System are difficult to wipe clean with paper towels after graffiti with whiteboard pens, markers, etc., and the anti-graffiti properties are relatively poor.

The UFlex[®] clean and Anti-Mold wall system can be wiped clean with a paper towel, and the anti-graffiti effect is comparable to that of glossy ceramic tiles.

However, the tile is easy to crack, empty drum, fall off, the gap is easy to grow bacteria, the anti-mold effect is poor, and it does not meet the new SC/GMP certification.

6 Aging resistance

Coating system	UFlex [®] Clean & Anti-Mold Wall System	Waterborne Epoxy Anti-Mold Wall System	General Anti-Mold Coating Wall System
Aging resistance test	UV exposure for 1000 hours, No yellowing and chalking	UV exposure 48 hours Yellowing, slightly chalking	UV exposure for 200 hours, slightly yellowing and chalking
Before the UV aging resistance test			
After UV aging resistance test			
Service life	More than 10 years	3~5 years	1~3 years



Food production environment

For the food system building wall mildew protection integrated solution, help food enterprises wall to meet the HACCP/SC certification standards.



Pharmaceutical production environment

For the pharmaceutical system building wall anti-mold and antibacterial integration solutions to help pharmaceutical companies wall to achieve GMP certification standards.



Hospital medical environment

The integrated antibacterial solution for the building wall of the medical system is an Eco-friendly functional wall system that improves indoor air quality.



Business and public education environment

For shopping malls, hotels, schools and other wash-resistant, anti-graffiti requirements of the integrated solution, anti-mold antibacterial, formaldehyde-free, to create a fresh, pleasant, harmonious indoor environment.



Business and public education environment

Commercial and public educational places (such as shopping malls, hotels, schools, etc.) are densely populated, which can easily cause bacterial cross-infection.

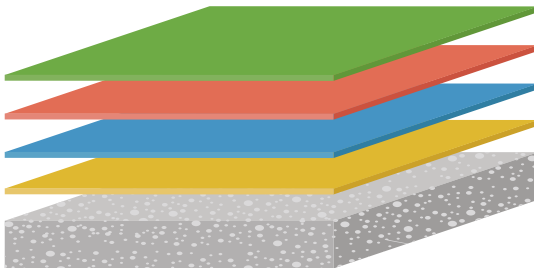
UFlex® Clean & Anti-Mold Wall System is anti-graffiti and easy to clean. It can effectively suppress germs, purify the air, and keep the walls of public places clean and hygienic. It is an ideal wall solution for commercial and public educational places.



Functional features

★ Anti-graffiti Easy to clean

- Clean odor and Eco-friendly
- Resistant to hot and cold cycles
- Anti-mold and anti-bacterial
- Chemically resistant
- Super stain resistant
- Long aging resistance



1. Substrate treatment
2. Interface processing layer
PROTOR INTERA09 Complex Waterborne Blocking Agent
3. Putty layer
METOP Kitt01 Anti-mold Wall Closure Putty
4. Primer layer
METOP Prim109 Waterborne Anti-mold and Anti-bacterial Sealing Primer
5. Top coating layer
METOP Ober609 Waterborne Anti-mold Clean Top Coating

Application area



UFlex® // Clean & Anti-Mold Wall System (Porcelain Glaze Effect)



Medical wall environment system

Hospitals are the place where all kinds of germs gather, the density of germs in the air and on the walls is very high, which is easy to cause cross-infection. UFlex® Clean & Anti-Mold Wall System can purify the indoor air of hospitals, effectively inhibit germs, and add a strong and powerful barrier of protection, which is an ideal wall solution for the healthcare industry. The UFlex® Clean & Anti-Mold Wall System with Class 0 mildew resistance, the coating surface is dense, impact resistant, not easy to damage, less wall maintenance times, long life, which reduces the financial burden of maintenance for hospitals while preserving the aesthetics of the walls.



Anti-mold
Anti-bacterial



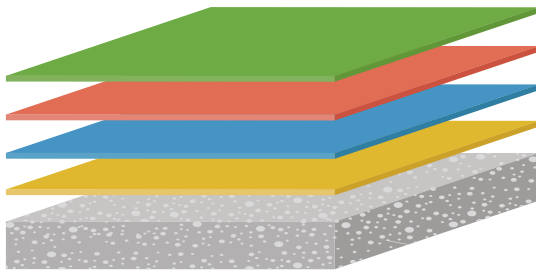
Super stain
resistant



Fire-
resistant
and durable



Clean odor
and Eco-
friendly



5. Top coating layer METOP Ober701 Waterborne Anti-mold Matte Top Coating
4. Primer layer METOP Prim109 Waterborne Anti-mold and Anti-bacterial Sealing Primer
3. Putty layer METOP Kitt01 Anti-mold Wall Closure Putty
2. Interface processing layer PROTOR INTERA09 Complex Waterborne Blocking Agent
1. Substrate treatment

Hospital wall application



Clinic area Public area



Operating Room ICU area (special area)



Easy to scrub, full score of stain resistance

Footprints, blood, food, colored pens, iodophor and other stains



Footprints



Iodophor



Bloodstain

Clean odor and Eco-friendly, create a clean and non-toxic medical environment

UQESH Waterborne Polyurethane Clean & Anti-Mold Wall System
Zero VOC, zero formaldehyde, zero benzene, no odor
France A+ certification, guarding the medical green environment.

A2 fire protection to ensure life safety

Effectively block the contact between the open flame and the building substrate structure
Delay the spread of fire and reduce the discharge of harmful substances from fire
Create a safe and healthy medical environment.

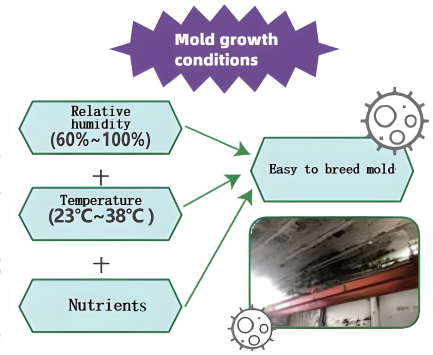
Anti-mold and anti-bacterial, guarding health

Class 0 Anti-mold resistance, 99.9% bacterial killing rate
Effectively inhibits the growth of germs and molds
Protect the health of doctors and patients



Food and pharmaceutical wall environmental system

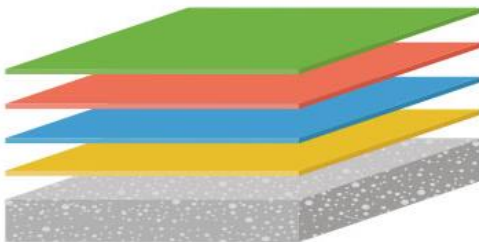
The production environment of food factories and pharmaceutical factories is humid, has large steam, high temperature, and is rich in nutrients, which can easily breed mold, pollute the production environment, and endanger the growth of animals and plants and human health. UFlex[®] clean and anti-mold wall system two-component mesh solidifies into a film, the coating film is dense, and it has the effect of porcelain glaze, which can isolate the penetration and erosion of moisture on the wall, inhibit the growth of bacteria and mold, and fundamentally solve the problem that the wall is prone to mildew.



Functional features

▲ Anti-mold Anti-bacterial

- Impact resistance
- Resistant to hot and cold cycles
- Chemically resistant
- Resistant to high pressure and warm water flushing
- Super stain resistant
- Long aging resistance



1. Substrate treatment
2. Interface processing layer
PROTOR INTERA09 Complex Waterborne Blocking Agent
3. Putty layer
METOP Kitt01 Anti-mold Wall Closure Putty + METOP Kitt739 Anti-mold Wall Putty Hardener
4. Primer layer
METOP Prim129 water-based anti-mold and Anti-bacterial strong primer
5. Top coating layer
METOP Ober609 Waterborne Anti-mold Clean Top Coating

Application area



METOP Ober 701 Waterborne Anti-mold Matte Top Coating

Features Long-lasting anti-mold, Hard and firm, Wear-resistant and scratch-resistant, Stain-resistant and easy to clean

Occasions Slaughterhouses, meat products, dairy, bread products, snack products and other food lines production areas & storage areas of the industry; New and old walls such as schools, hospitals, offices, etc.

Bacteria-resistant species: Staphylococcus aureus, E. coli

Anti-mold species: Streptococcus, Aspergillus, Penicillium oryzae, etc.

PROTOR INTER A09 Complex Waterborne Blocking Agent

Features Strong reinforcement, Water-resistant and mildew-proof, Strong adhesion

Occasions New concrete, loose walls, chemicals, printing plant production areas, clean areas, central kitchens and other walls.

METOP Ober 609 Waterborne Anti-mold Clean Top Coating

Features Long-lasting anti-mold, Hard and firm, Wear-resistant and scratch-resistant, Stain-resistant and easy to clean

Occasions Slaughterhouses, meat products, dairy, bread products, snack products and other food lines production areas & storage areas of the industry; New and old walls such as schools, hospitals, offices, etc.

Bacteria-resistant species: Staphylococcus aureus, E. coli

Anti-mold species: Streptococcus, Aspergillus, Penicillium oryzae, etc.

METOP Kitt01 Anti-mold Wall Closure Putty

Features Hard and firm, Water and alkali resistant, Long-lasting anti-mold, white and delicate

Occasions Various concrete and cement walls, office areas, shopping malls, food storage areas, etc.

METOP Ober 309 Inorganic Porcelain Fireproof Top Coating

Features Class A fireproof, Anti-bacterial and anti-mold, Breathing and humidity control, Durable and wear-resistant

Occasions New and renovated indoor public spaces: residences, schools, kindergartens, offices, medical institutions, etc.

METOP Kitt 739 Anti-mold Wall Putty Hardener

Features Long-lasting anti-mold, Super penetration, Strong adhesion, Alkali-resistant and waterproof

Occasions As a putty additive, with METOP Kitt01 anti-powder mold wall sealing putty or exterior wall cement-based water-resistant putty that has passed the JG/T157-2009 building exterior wall putty P-type standard is used.

METOP Ober 301 Waterborne Anti-bacterial and Anti-mold Coating

Features Long-lasting anti-mold, 99.9% Anti-bacteria rate, Alkali-resistant and waterproof, Stain-resistant and easy to clean

Occasions

- It can be applied to cement mortar, stucco, cement asbestos board, concrete and other surfaces.
- It is suitable for places with low performance requirements such as chemical resistance, stain resistance, flushing resistance, high temperature resistance, high humidity, hot and cold temperature change, and impact resistance.
- New and renovated indoor public spaces: residences, schools, kindergartens, offices, medical institutions, etc.

METOP Prim 109 Waterborne Anti-mold and Anti-bacterial Sealing Primer

Features Long-lasting anti-mold, Super penetration, Strong adhesion, Alkali-resistant and waterproof

Occasions

- It can be applied to cement mortar, stucco, cement asbestos board, concrete and other surfaces.
- It is suitable for places with low performance requirements such as chemical resistance, stain resistance, flushing resistance, high temperature resistance, high humidity, hot and cold temperature change, and impact resistance.
- New and renovated indoor public spaces: residences, schools, kindergartens, offices, medical institutions, etc.

METOP Toc 909 Waterborne Anti-mold Finish Varnish

Features Long-lasting anti-mold, Resistant to humid environments, Impact resistance, Anti-graffiti and easy to clean

Occasions

- Slaughterhouses, meat products, dairy, bread products, snack products and other food lines production areas & storage areas of the industry.
- It is suitable for beverage, food, pharmaceutical and other industries that strictly require dust-proof, mold-proof, anti-corrosion and scrub-resistant.
- New and renovated indoor public places: schools, kindergartens, offices, hospitals, etc.

METOP Prim 129 Waterborne Anti-mold and Anti-bacterial Strong Primer

Features Long-lasting anti-mold, Super penetration, Strong adhesion, Alkali-resistant and waterproof

Occasions

- It can be applied to cement mortar, stucco, cement asbestos board, concrete and other surfaces.
- It is suitable for places with high performance requirements such as chemical resistance, stain resistance, flushing resistance, high temperature resistance, high humidity, hot and cold temperature change, and impact resistance.

UFlex®

Innovation Eco-friendly Relieved

UQESH Advanced Material Technology (Shanghai) Co., Ltd. is a Sino-Japanese joint venture. Based on the advanced castor oil polyurethane technology from Japan, UQESH developed and produced a series of green and environmentally friendly polyurethane floor and wall materials.

With excellent performance such as wear-resistant and pressure-resistant, mildew resistant and antibacterial, environmental protection and easy cleaning, UQESH waterborne polyurethane floor and mildew resistant wall system have become a designated brand of a large number of world-renowned enterprises, providing unique technical solutions for food, medicine, intelligent manufacturing, new energy, public buildings, household residences industries, etc. At present, millions of square meters of high-quality polyurethane floor and wall systems have been completed.

UQESH always adhere to the concept of environmental protection and safety, to human health and environment as the mission, is committed to the research and development of castor oil derivatives in a variety of applications, to achieve non-toxic, non-hazardous, low-carbon and environmentally friendly biobased materials, sustainable development, to provide customers with high-quality products and services for the recycling of the green. And we already got HACCP food safety production system certification, GMP standard certification, and ISO14001/9001 certification in the industry; our products have passed the French Indoor Environment Testing A+ certification, food non-toxic contact certification, and LEED product certification.



HACCP food safety
system certification



GMP certification
enterprise production



ISO 9001-2015



ISO 14001-2015



French indoor environmental
testing A+ certification



Halal certification

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