



中國製釉股份有限公司
CHINA GLAZE CO., LTD.

Fresh-air Nano Solution

(Environment Friendly Inorganic Nano Solution)
-Easy clean and Fresh air-

Suitable for

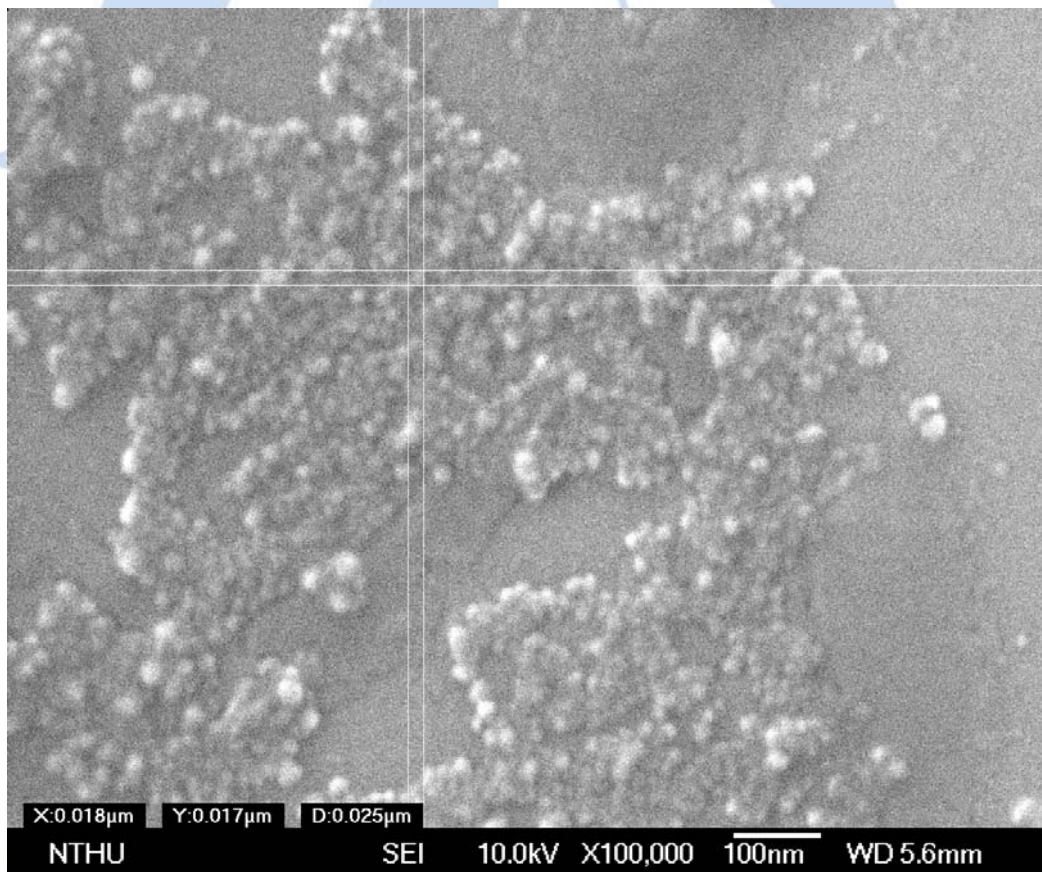
ceramic building

material and stone material

中國製釉
CHINA GLAZE

Characteristic introduction

1. Medicament state: Water base of liquid material, transparently to slight milky.
2. Particle size on the surface of formed membrane after medicament being spreaded and dried: 20~30nm



3. Instructions:
To dry by nature wind under indoor temperature after directly spreading 30~50 µm thickness of medicament alone on the surface of object. It also can be made the later maintenance on the spreaded material through



this construction way because it does not need any unnecessary processing course.

4. Functions after spreading:

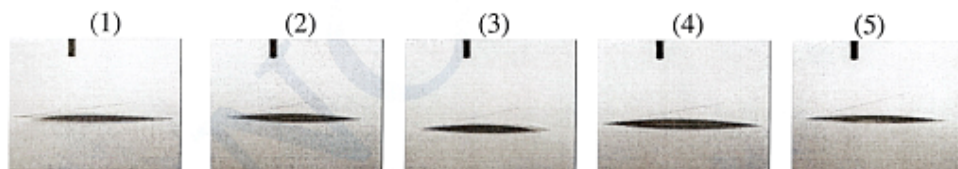
(A) Super-hydrophilic ability:

The surface is easy to bond to water molecule, and form one layer of hydrophilic membrane, which has the control action to the ambient humidity. That is the spreaded surface will adsorb the unnecessary moisture in the air during the high humidity, and release the adsorbed moisture during the low humidity; it has the functions to adjusting ambient humidity, and increasing environment comfort.

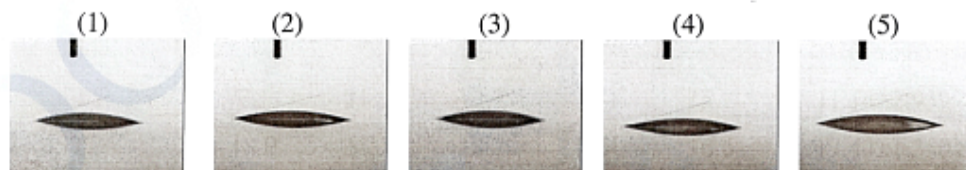
Test picture of Super-hydrophilic: (STD : blank - OF2 : spreaded medicament)

I -2 Figures of Water Contact Angle

OF2



STD



(B) Easy clean ability:

It is very easy to clean the surface greasiness with clear water during the spreaded surface stained with the suspended particle in the air and greasiness; it also can reduce clean times, save time and strength to

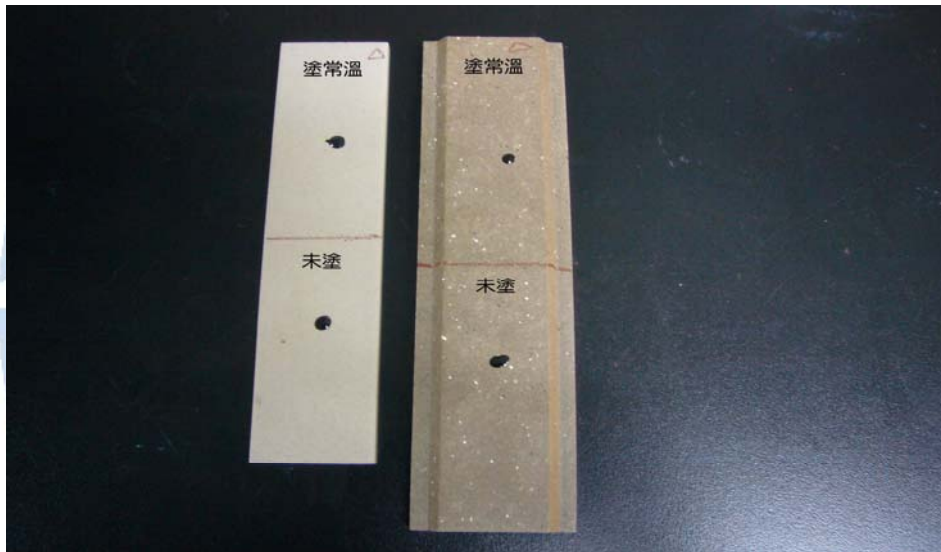


中國製釉股份有限公司
CHINA GLAZE CO., LTD.

daily clean maintenance of the spreaded surface in the interior & exterior wall of hospital and house, and the building material of sanitary facility.

Test picture of Easy clean

Method: to use heavy oil as the pollutant, with water flushing on the anti-greasy experiment



Picture: Spreaded medicament respectively



Picture: It can clean away greasiness on white exterior wall with the spreaded medicament by water flushing after 30 seconds,



as well as brown exterior wall with the spreaded medicament by water flushing after 60 seconds; and it can not clean away greasiness on exterior wall without the spreaded medicament by water flushing

(C) Reduce VOC ability of the odor (the unpleasant smell of volatile organic compounds in the environment): The main reasons for the unpleasant smell in the daily life are ammonia, smoke smell and formaldehyde solvent odor from repairing, it can quickly reduce the content of this toxic organic volatility compounds in the short time with the medicament on the spreaded surface.

Test result of VOC on tile surface with the medicament

检测报告 TEST REPORT				检测报告 TEST REPORT					
委托单位: 广东三水大鸿制釉有限公司		报告编号: 2010001227-1		委托单位: 广东三水大鸿制釉有限公司		报告编号: 2010001227-2			
Customer Guangdong Sanshui T&H Glaze Co., LTD.		Report No 2010001227-1		Customer Guangdong Sanshui T&H Glaze Co., LTD.		Report No 2010001227-2			
样品名称: 1.未施纳米分解VOC材料瓷砖		接样日期: 2010年3月18日		样品名称: 2.施纳米分解VOC材料瓷砖		接样日期: 2010年3月18日			
Sample Name Normal-glazed tile		Sample Receiving Date 18-Mar-10		Sample Name Tile with nano material		Sample Receiving Date 18-Mar-10			
受检样品数量: 1		检测日期: 3月18日 至 4月5日		受检样品数量: 1		检测日期: 3月18日 至 4月5日			
Quantity Received 1		Testing Period 18-Mar to 5-Apr		Quantity Received 1		Testing Period 18-Mar to 5-Apr			
样品批号: —		签发日期: 2010年4月5日		样品批号: —		签发日期: 2010年4月5日			
Sample Lot No /Batch No: —		Date for Reporting 5-Apr-10		Sample Lot No /Batch No: —		Date for Reporting 5-Apr-10			
分析检测结果 Test Results				分析检测结果 Test Results					
分析项目 Item	检测结果Result		试验条件下的下降率(%) Rate of decline under the test condition(%)	检测方法 method	分析项目 Item	检测结果Result		试验条件下的下降率(%) Rate of decline under the test condition(%)	检测方法 method
	检测条件Condition	检测结果Result				检测条件Condition	检测结果Result		
甲醛 Formaldehyde	放入样品0h浓度 0 h after the sample was put in (mg/m ³)	1.92	—	HPLC(USP-EPATO-5-1984)	放入样品0h浓度 0 h after the sample was put in (mg/m ³)	2.1	—	HPLC(USP-EPATO-5-1984)	
	放入样品8h浓度 8 h after the sample was put in (mg/m ³)	1.22	36.5		放入样品8h浓度 8 h after the sample was put in (mg/m ³)	0.36	82.9		
	放入样品16h浓度 16 h after the sample was put in (mg/m ³)	1.07	44.3		放入样品16h浓度 16 h after the sample was put in (mg/m ³)	0.29	86.2		
	放入样品24h浓度 24 h after the sample was put in (mg/m ³)	1.04	45.8		放入样品24h浓度 24 h after the sample was put in (mg/m ³)	0.25	89.0		
	放入样品32h浓度 32h after the sample was put in (mg/m ³)	0.94	51		放入样品32h浓度 32h after the sample was put in (mg/m ³)	0.23	88.1		
	放入样品40h浓度 40 h after the sample was put in (mg/m ³)	0.9	53.1		放入样品40h浓度 40 h after the sample was put in (mg/m ³)	0.21	90.0		
	放入样品48h浓度 48h after the sample was put in (mg/m ³)	0.88	54.2		放入样品48h浓度 48h after the sample was put in (mg/m ³)	0.17	91.9		
备注 Note	在1m ³ 的密闭玻璃箱中注入一定量的甲醛, 放入样品, 作用一定时间测定浓度变化。 Inject a certain number of formaldehyde in a sealed box, then determinate the concentration of formaldehyde before and after treated by the sample machine. (1)未经本中心的书面批准不得部分复制本报告(全部复制除外)。			备注 Note	在1m ³ 的密闭玻璃箱中注入一定量的甲醛, 放入样品, 作用一定时间测定浓度变化。 Inject a certain number of formaldehyde in a sealed box, then determinate the concentration of formaldehyde before and after treated by the sample machine. (1)未经本中心的书面批准不得部分复制本报告(全部复制除外)。				
声明 Declaration	Without the written approval of the laboratory, the report shall not be reproduced except in full. ②送检样品, 只对来样负责。 For sample submitted by customer, the results of the report is responsible for the sample only.			声明 Declaration	Without the written approval of the laboratory, the report shall not be reproduced except in full. ②送检样品, 只对来样负责。 For sample submitted by customer, the results of the report is responsible for the sample only.				
编审: 廖耀承	批准: 牟德海	盖章:		编审: 廖耀承	批准: 牟德海	盖章:			
Organizer and Checker	Technique Controller	Official Seal		Organizer and Checker	Technique Controller	Official Seal			
职务: 工程师	职务: 研究员			职务: 工程师	职务: 研究员				
Business: Engineer	Business: Research Professor"			Business: Engineer	Business: Research Professor"				