

KWOLIN
國麗實業

品質·信賴·專業

抗菌 粉末塗料

ANTIBACTERIAL
POWDER
COATING

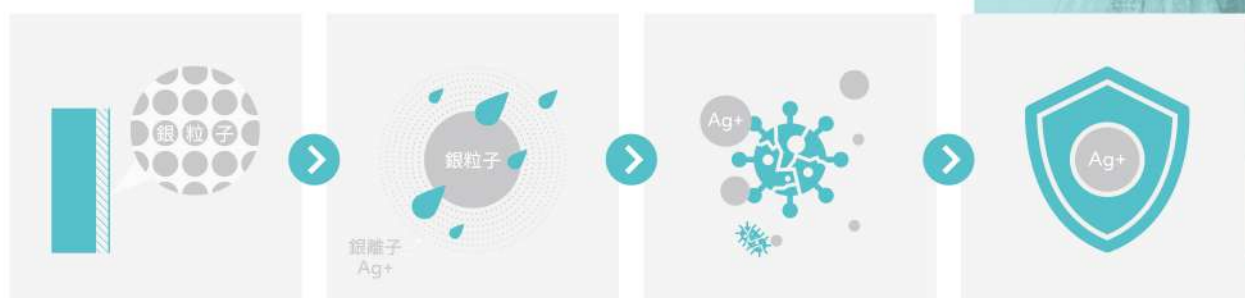
粉末塗料 專業製造
POWDER COATINGS

抗菌原理與益處

TECHNICAL INFORMATION & BENEFITS

銀長久以來便被證實能有效抑制多種微生物的生長，且對人體及動物的毒性很低

Silver has been proven to inhibit the growth of a variety of microbes effectively. It is also hypotoxic to both humans and animals.



國麗ABP抗菌粉末塗料主要是以無機銀粒子均勻分散於塗層中

KwoLin ABP Antibacterial Powder Coating mainly applies the principle that the inorganic silver particles disperse evenly in the coating.

表面銀粒子接觸空氣中的水分時，釋出銀離子

When exposing the moisture in the air, the silver particles on the surface will release silver ions.

此銀離子會與細胞膜的硫基作用，造成細菌死亡

The ions will interact with the sulfhydryl (-SH) of the cell membrane to make the bacteria die.

達到抗菌效果

Therefore achieve the antibacterial effect.

無機銀粒子的優點具有

THE ADVANTAGES OF THE INORGANIC SILVER PARTICLES

耐高溫
High temperature resistance



耐候
Weather resistance



耐洗滌
Washing resistance



即使表面磨損時，只是讓內層銀粒子裸露於表層，也不影響其抗菌效果，是長效且安全的產品

Although the surface is abraded, only the inner silver particles will be exposed on the surface. It does not influence its antibacterial effect; it is a long-lasting and safe product.

應用領域與客製化

IDEAL APPLICATION & CUSTOMIZATION

此抗菌效果可避免細菌於物體表面孳生繁殖，減少人體接觸細菌的機會。

The antibacterial effect can prevent bacteria from breeding and multiplying on the surface of objects and minimize the chances that human contact with bacteria.

抗菌粉末塗料主要可應用於

THE ANTIBACTERIAL POWDER COATINGS CAN BE APPLIED ON



運動器材 Sports equipment



醫療床椅 Medical beds and chairs



學校儲物櫃 School lockers



兒童遊樂設施 Children's entertainment facilities

客製化

CUSTOMIZATION

我們可以針對您需求的各種

顏色

花紋

光澤

純環氧

環氧聚酯混合型

純聚酯

PU

壓克力等

不同樹脂體系為您設計，並賦予抗菌性能

We can meet your demands of each color, pattern, gloss, and various pure epoxy, epoxy-polyester hybrid, pure polyester, PU, acrylic, and other different resin types with antibacterial properties.

報告說明

REPORT DEMONSTRATION



經SGS依JIS Z2801驗證說明，當抗菌活性值(R)若大於2.0，表示有抗菌效果。報告數據顯示我們粉末塗料的抗菌性能極為優良。

According to JIS Z2801 verified by SGS, "Antibacterial activity (R) = [log(B/C)]; R shall be > 2 for Antibacterial effectiveness."
The report data shows that the antibacterial properties of our powder coatings are extremely good.

SGS

食品實驗室-台中 FOOD LAB-TAICHUNG 測試報告 Test Report

國麗化工有限公司
台中市太平區正光街25號

報告編號： BA/2014/31506
日期： 2014/04/10
頁數： 1 of 2



以下測試之樣品係由申請廠商所提供並確認資料如下：

產品名稱： ABP抗菌粉末塗料
申請廠商： 國麗化工有限公司
收樣日期： 2014/03/26
測試日期： 2014/03/26
測試方法： JIS Z2801

測試結果：

試驗菌種： 大腸桿菌 <i>Escherichia coli</i> ATCC 8739			
試驗組別	CFU/cm ²	LOG	抗菌值(R)
A	1.3×10 ⁴	4.11	>6.69
B	3.1×10 ⁶	6.49	
C	<0.63	-0.20	

試驗菌種： 金黃色葡萄球菌 <i>Staphylococcus aureus</i> ATCC 6538			
試驗組別	CFU/cm ²	LOG	抗菌值(R)
A	6.3×10 ³	3.80	4.87
B	4.7×10 ⁴	4.67	
C	0.63	-0.20	

備註：

1. A: 無加工樣品接種後立即測試之菌數，其應介於 $6.2 \times 10^3 \sim 2.5 \times 10^4$ CFU/cm²。
2. B: 無加工樣品經24小時培養後之菌數。
3. C: 加工樣品經24小時培養後之菌數。
4. 抗菌值 (R) = [log(B/C)]; 抗菌活性值 (R) 若大於2.0，表示有抗菌效果。
5. 若無"無加工樣品"，以空白組代替之。
6. 本報告不得分離或擷錄使用。

- END -



連結至 SGS 安心資訊平台



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TWB 3165845

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食品實驗室-台中
FOOD LAB-TAICHUNG
測試報告
Test Report

KWO LIN CO., LTD.
NO. 25, JHENGGUANG ST., TAIPING DIST.,
TAICHUNG CITY 411, TAIWAN

Report No: BA/2014/31506A-01

Date: 2014/04/10

Page: 1 of 2



THE FOLLOWING MERCHANDISE WAS(WERE) SUBMITTED AND IDENTIFIED BY THE CLIENT AS

Product Name: ABP Powder Coating
Application : KWO LIN CO., LTD.
Sample Received: 2014/03/26
Testing Date: 2014/03/26
Test Method JIS Z2801

Test Result:

TEST BACTERIA : <i>Escherichia coli</i>		ATCC 8739	
Test Group	CFU/cm ²	LOG	Antibacterial activity (R)
A	1.3×10 ⁴	4.11	>6.69
B	3.1×10 ⁶	6.49	
C	<0.63	-0.20	

TEST BACTERIA : <i>Staphylococcus aureus</i>		ATCC 6538	
Test Group	CFU/cm ²	LOG	Antibacterial activity (R)
A	6.3×10 ³	3.80	4.87
B	4.7×10 ⁴	4.67	
C	0.63	-0.20	

NOTE:

1. A : Untreated test piece at "0" hr, bacteria counts should be at 6.2*10³ to 2.5*10⁴ CFU/cm²
2. B : Untreated test piece at "24" hrs
3. C : Antibacterial test piece at "24" hrs
4. Antibacterial activity (R)= (log(B/C)) ; R shall be > 2 for Antibacterial effectiveness.
5. If "Untreated test piece" can't be prepared, "Blank" may be used.
6. The report is in vain if it is partly reproduced or used.

- END -



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