無機系抗菌材 アムテクリーンZ

Antibacterial Agent 'AMTECLEAN – Z'

無機系抗菌材 アムテクリーンZ Antibacterial Agent AMTECLEAN-Z

- Composite antibacterial material characterized by the synergistic effect of silver and zinc ions.
- Can be processed into a wide variety of materials. (Resin, paint, elastomer, non-woven fabric, etc.)
- In addition to antibacterial, it can be used for antifungal applications.

Application : In the fields of home appliances, medical care, living environment, etc.

GRADES

name	appearance	Material composition
MK-10	White powder	Silver-HAP + Panatrtra (ZnO)
MK-12	White powder	Silver-Glass + Panatetra (ZnO)

Packing : Paper bag containing 10 kg

Example of antibacterial effect of AMTECLEAN-Z

Example of compounding in each matrix

Evaluation method : Film adhesion method（JIS Z2801）

Grade	Formulation matrix	amount	Bacterial species	Colony forming unit 0 h	Colony forming unit 24h
MK-10	Acrylic paint	0.5wt%	MRSA	4.1×10^5	<10
	PP Resin	1.0wt%	E.coli	4.7×10^5	<10
			S.A.	1.8×10^5	<10
MK-12	PP Resin	0.5wt%	E.coli	2.1×10^5	<10
	ABS Resin	0.3wt%	S.A.	1.3×10^5	<10
	Glass filter	0.3wt%	P. aeruginosa	5.3×10^5	<10
			Salmonella	3.3×10^5	<10

Application example : Water purifier parts

AMTECLEAN-Z compound resin is used for the water purifier housing (Effect of suppressing the occurrence of sliminess due to spoilage of accumulated water)

Grade	Bacterial species	Colony forming unit 0 h	Colony forming unit 24h
MK-10	E.coli	5.5×10^5	<10
	S.A.	7.3×10^5	<10

Application example : Water purifier cartridge

Evaluation method : Film adhesion method（JIS Z2801）

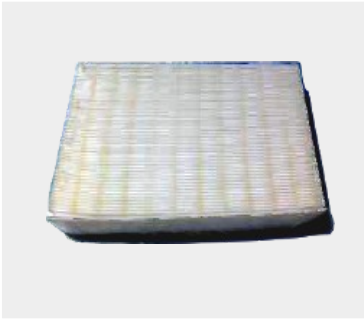
AMTECLEAN-Z compound PP in the frame (product number: MP1AZ) use. Suppresses the growth of germs and mold

Grade	Bacterial species	Colony forming unit	
		0 h	24h
MK-10	E.coli	4.7×10^5	<10
	S.A.	1.3×10^5	<10

Application example : Air purifier filter

Evaluation method : Bacterial fluid absorption method （JIS L 1902）

Processed into non-woven fabric used for filters to suppress the growth of germs and mold



Grade	Bacterial species	Colony forming unit	
		0 h	24h
MK-10	S.A.	1.9×10^6	<200

※Inoculum concentration 7.3×10^6 (cfu/ml)

（Filter characteristics）

Item	Evaluation method	Typical value
Thickness	Compliant with JIS P 8118	0.19㎜
Pressure loss	Dust PAO 0.3μm Flow velocity 5.3m/sec	75Pa
Dust collection efficiency		95%
Tensile strength	Compliant with JIS P 8113	3N/15mm

Precautions:

The technical information provided in this document explains the typical properties of products and application examples and does not guarantee rights or grant licenses of Our company and third parties.
The data in this catalog is based on our tests and is not absolute. When using it, please carefully consider whether it is suitable for the intended use.

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