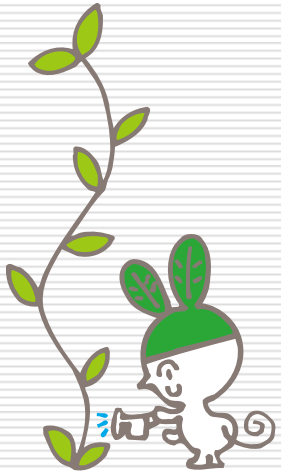
Anti-bacterial 『Hospitone』 Ceiling

DAIKEN Corporation



What is Anti-bacterial effect?

「Anti-bacterial effect is to inhibit the growth of mold and yeast by biologically active agent.

There are two types of anti-bacterial effect; sterlization and bacteriostasis.

Sterlization is to kill and reduce numbers of bacteria.

Bacteriostasis is an inhibition of bacteria growth without killing.

*Antisepsis differs from anti bacterial effect. Antisepsis is a powerful sterlization which kill all bacteria by certain cemicals.

Anti-bacterial mechanism

①Inorganic anti-bacterial agent added onto the surface of Dylotone will react with bacteria (protein layer that covers bacteria).

②This reaction will destroy protein layer that contains bacteria.

③Destroyed bacteria will be killed when exposed to air.

Anti-bacterial test result

Bacteria type	Sample	Viable bacteria after 24 hours
Bacteria caliform (3.6×10⁴)	Normal	1.1×10²
	Anti-bacterial processed	<10
	preparation	2.6×10⁶
Pseudomonad aeruginosa (4.5×10⁴)	Normal	7.8×10⁶
	Anti-bacterial processed	10
	preparation	2.2×10⁶
MRSA (メチシリン耐性黄色ブドウ球菌) (3.8×10⁴)	Normal	10
	Anti-bacterial processed	<10
	Anti-bacterial processed	1.2×10⁶

Method: Drop bacteria coliform, green pus, and MRSA, then cultivate at 36℃.

After 24hours of cultivation, count the number of viable bacteria.

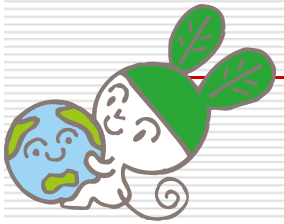
Examining body: Japan Food Analysis Center

Publication number: NA-69060450

Publication date: July 16th 1996

1)Preparation represents the numbers of viable bacteria kept on plastic dish

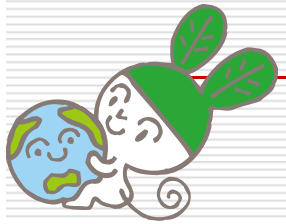
2) ( ) represents the numbers of viable bacteria right after inoculation.



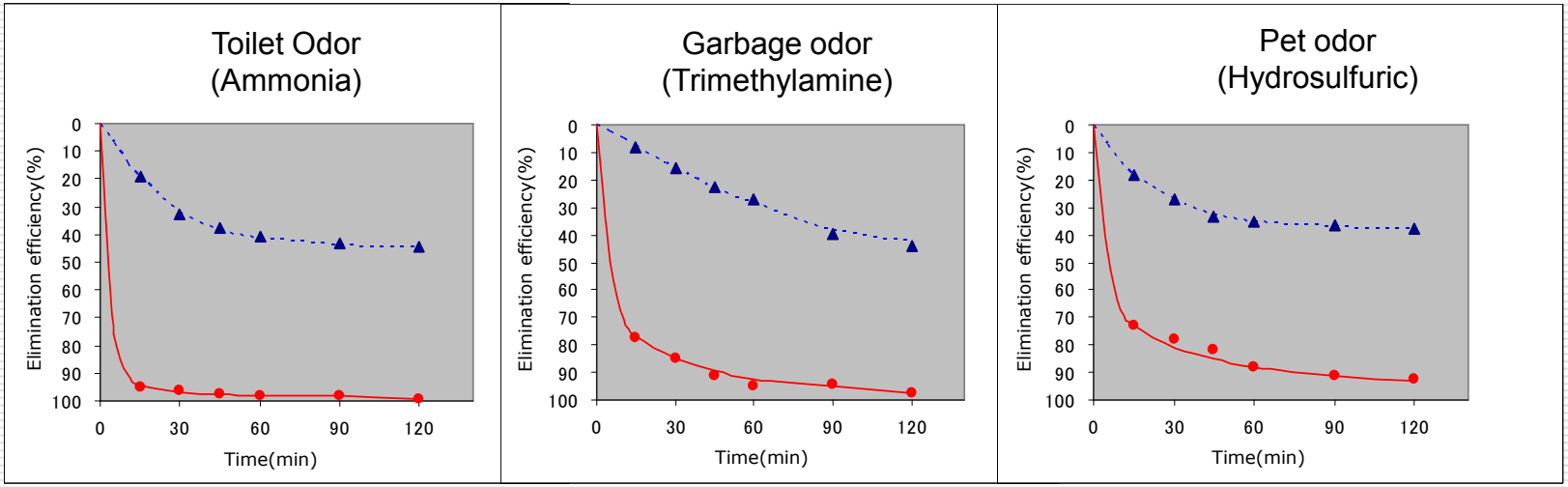
Odor absorption mechanism

①Deodorant added on surface of Dylotone（substance extracted from natural plants)will absorb odors in daily life.

②Odor absorbed into the surface will decompose and mutualize the odor.



Result of odor absorption test



Place test piece (150×200mm) into 2L ceiled container. Then add 1ml of 0.28% Ammonia water and seal.

Place test piece (150×200mm) into 2L ceiled container. Then add 1ml of 0.3% Trimethylamine water and seal.

Place test piece (150×200mm) into 2L ceiled container. Then add 80ppm of hydrogen sulfide gas.

*This test result do not guarantee the numerical performance of the product.

*It does not have an immediate effect. For a strong and long lasting odor, please use a fan.

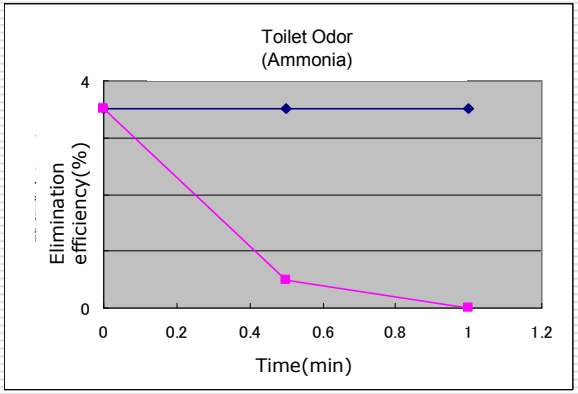
Hospitone
odor absorption test①

■2 functions of Hospitone odor absorption.

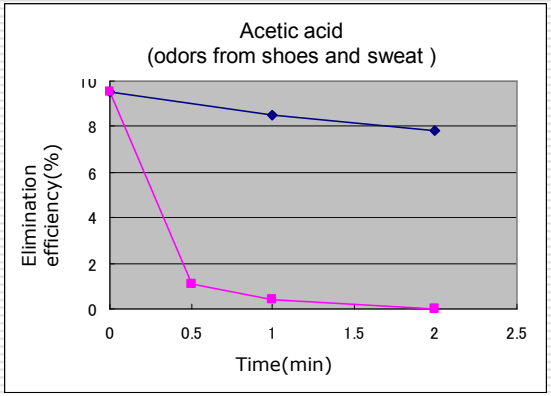
① Hospitone is a porous material. It will absorb odors just like activated charcoal

② Deodorant added on surface of Dylotone(substance extracted from natural plants)will absorb odor in daily life.

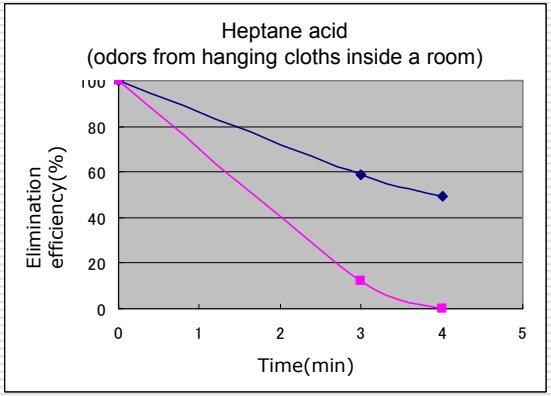
: blank : Hospitone



Place test piece (100×100mm) into a bag. container. Then add 0.28% Ammonia water 0.018μL and measure every 10min.



Place test piece (100×100mm) into a bag. container. Then add 99.9% acetic acid 0.093μL and measure every 10min.



Place test piece (100×100mm) into a bag. container. Then add 99.% heptane acid 2μL and measure every 10min.

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Hospitone
odor absorption test②

■2 functions of Hospitone odor absorption.

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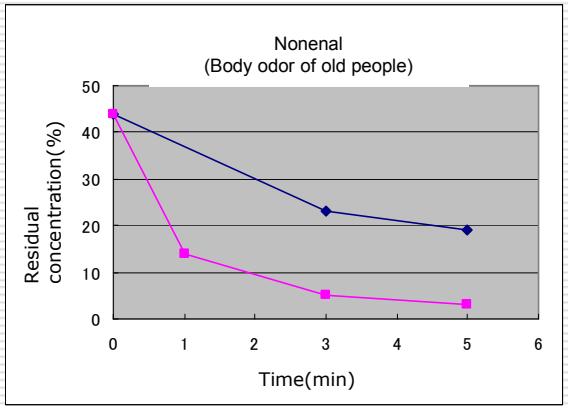
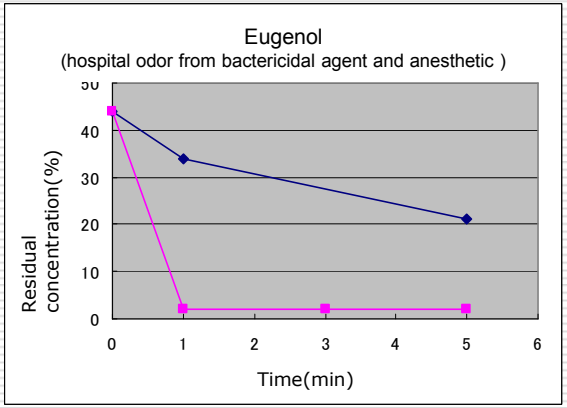


Place test piece (100×100mm) into a bag. container. Then add 100ng/mL Nonenal 5μL and measure with gas chromatography every 10min.



Place test piece (100×100mm) into a bag. container. Then add 100ng/mL Eugenol 5μL and measure with gas chromatography every 10min.

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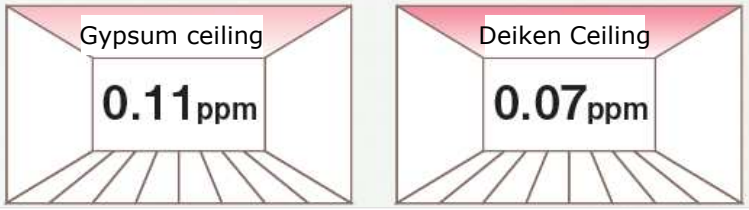
【Extra Option】
Absorbs harmful formaldehyde

Additional function: Absorption and decomposition of Formaldehyde emitting from building material, furniture, and curtain.

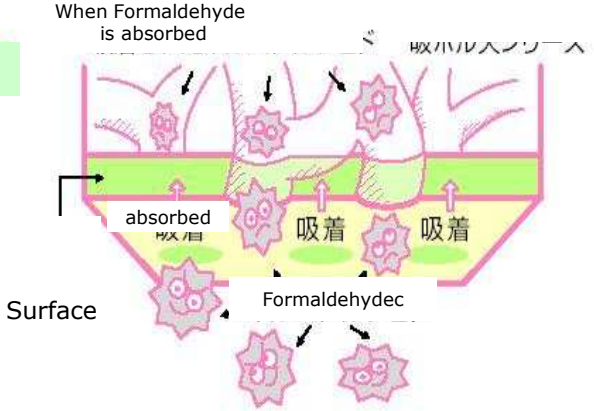
WHO and Health, Labor and Welfare ministry announce the acceptable density of Formaldehyde inside a room is 0.08ppm

■Formaldehyde absorption compareson test



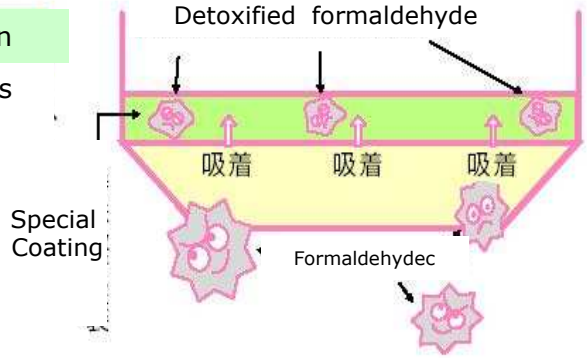
Physical absorption

When the level of formaldehyde raises due to the change in temperature and humidity, the surface will absorb them into their pores.



Chemical absorption

Special coating absorbs and detoxifies formal-dehyde.



HOSPITONE
Product Specification

Surface： White paint

Formaldehyde regulation：N/A

Non-combustible material

Non- Asbestos material

Recommended Patten ：

“Plain type”

Please contact for thickness, size, surface pattern, color, edge request

Hospitone Projects References

- HOSPITONE Projects

India /

- ESI (Employees' State Insurance) Kolkata India
  (2011~) 92,000M2++

- MMM Hospital Chennai
  (2012~) 9,000m2++

Singapore /

- Singapore Dental Care Centre
  (2011~) 4,500m2

アメニティデザイン企業

DAIKEN