

# Test Report of Antimicrobial power

Date: April 22<sup>nd</sup>, 2003

Client: Kon Corporation

Kon Corporation supplied several tiles coated With TiO<sub>2</sub> photocatalyst to Kyoto Biseibutsu Kenkyujo on March 26th, 2003 to check the antimicrobial power of those tiles. We certify that the test results described below are true.

Laboratory: Kyoto Biseibutsu Kenkyujo  
A Specified laboratory by Japanese  
Ministry of Health, Labor and Welfare  
Ministry of Health, Labor and Welfare  
Hygiene 650th

Address: 16-2 Kubo-cho, Kamikazan,  
Yamashina-ku, Kyoto 607-8464  
Section Manager: Ryosuke Matsuura

1. Supplied test product: TiO<sub>2</sub> photocatalyst ceramic tiles: Under light condition

2. Test purpose: Antimicrobial power

3. Test method: Film contact method on optical irradiation

An antimicrobial power was determined by " Film contact method on optical irradiation" of SIAA (Society of Industrial-technology for Antimicrobial Articles).

The bacteria suspension was then to make an initial count of 100000 CFU/ml with a 1/500 Nutrient Broth (dilute with sterilization water 500 times).

The bacteria suspension was onto a sample and film cover on the bacterial suspension.

The sample was incubated at 20 to 25 centigrade while shading.

After 24 hours, the number of live bacteria was counted.

4. Bacteria: Escherichia coli IFO-39'72  
Staphylococcus IFO-12732

Bacteria on TiO<sub>2</sub> coated tile

Bacteria Name	Number of live Bacteria			
	Initial Number	24 hours-1	24 hours-2	Average number
E. Coli	3.3 x 10 <sup>5</sup>	<10	<10	<10
St.aureus	3.3 x 10 <sup>5</sup>	<10	<10	<10

Bacteria on non TiO<sub>2</sub> coated tile

Bacteria Name	Number of live Bacteria			
	Initial Number	24 hours-1	24 hours-2	Average number
E. Coli	3.3 x 10 <sup>5</sup>	5.5 x 10 <sup>6</sup>	6.1 x 10 <sup>6</sup>	5.6 x 10 <sup>6</sup>
St.aureus	3.3 x 10 <sup>5</sup>	6.4 x 10 <sup>4</sup>	6.7 x 10 <sup>4</sup>	6.4 x 10 <sup>4</sup>