

A World-class Japanese Antimicrobial Technology “KOHKIN” - Developing a 900-billion-yen Market - SIAA/INAX

Market of antimicrobial product, which is expected to be more than 900-billion-yen, has succeeded in obtaining 100% approval on final voting, under Dr.Shigeo Imai, project leader of ISO 22196, also the chairperson of International Standardization Organization of SIAA (Society of Industrial technology for Antimicrobial Articles) . It followed by the publication of an international standard ISO 22169, and Antimicrobial Technology is expected to develop in the global market.

Antimicrobial Technology is used in home-appliance such as, refrigerator, toilet, wash-basin, which consists more than 70% of the market share. The market is estimated around 900 billion yen. Materials which have bactericidal effects, such as silver, copper, zinc are used in Antimicrobial Technology, and silver is the most widely used material in the market.



This logo is applied only for SIAA members' approved products

On October 9th, 2007, ISO 22196 was published for ISO 22169 for Japanese antibacterial Technology, and “KOHKIN” officially got an approval to diffuse its technology in the world.

The first antibacterial measurement standard was published as JIS Z 2801 in 2000. ISO 22169 inherits this JIS standard regarding antibacterial activity on treated articles, passed vote by unanimous consent (Sep 18, 2007).

The chairperson of International Standardization Organization of SIAA, Shigeo Imai (General Manager, Sustainable System Development Office, Sustainable Innovation Dept. INAX Corporation) was the project leader of ISO 22196.

To be registered as ISO standard, which first started in Europe, a candidate product or technology must obtain approval from at least 5 board members, each from different country, who have been selected as experts by the organization. Furthermore, since similar product or technology can be already registered for other countries, it is often quite difficult to gain an approval. However, despite difficulties of adjusting diverse opinion from voter countries, “KOHKIN” succeeded 100% approval, which made the technology to be registered within only 37 months.



Shigeo Imai, Ph.D.
The chairperson of
International Standardization
Organization SIAA

Commenting upon the publication in such a short time, Shigeo Imai, the chairperson noted, “All these approvals show that there are increasing demand for high additional value technology for hygiene and environment in markets of advanced nations.” Furthermore, he pointed out that since the document of ISO also states the scope of JIS that “non-porous materials” can be applied to the technology as well, there is a potential to apply other materials beyond plastics. Thus, SIAA is going to prepare new drafts in fields such as metal, ceramics, rubbers, paint, or whatever to keep making the best effort to live up to people’ s expectations of improved quality of life (QOL).

SIAA has already received many requests from foreign companies, and it plans to formulate a new guidance for OECD (Organization for Economic Co-operation and Development) this year.

What is Antibacterial Technology?

Antibacterial Technology is different from sterilizing and disinfecting; i.e. It is a technology to prevent bacteria growth on the surface of treated airticles without killing. For example, Socks may begin to smell at the end of the day. Antibacterial Technology minimizes the growth of these bacteria.

Definition of “KOHKIN”

KOHKIN is defined as “condition inhibiting growth of bacteria on the surface of products” (cited from JIS Z 2801). Generally it is identical to “antibacterial.”



Japanese people have been using a method of antibacterial technology, “KOHKIN” , in their tradition. Persimmon leaf and bamboo leaf are used to roll sushi in order to prevent the growth of bacteria since they contain natural antimicrobial agent. Sushi restaurants often use Japanese cypress as cutting boards which contains antibacterial constituent. Thus, antibacterial technology is a technology that is based on Japanese culture.

SIAA specifies products as “antibacterial,” which have more than antibacterial activity of 2, based on antibacterial test.