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Anti-Piracy *Forces for Good in the Gulf of Aden*

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Urban Regeneration: Marunouchi

ITmk3 Plant Mesabi Nugget

Biodiversity: Connecting with the Countryside

Tashinami: A Taste for Luxury

More...

Quintessential Quietude With SWCC Showa DT Quiescent



COURTESY OF SWCC SHOWA HOLDINGS CO., LTD.

The Quiescent panel readily absorbs low frequency sound, especially that below 500 Hz.

materials) allowed the company to commence original development and manufacturing of vibration control-use rubber. As a pioneer in vibration/sound control, the company therefore is contributing to fields ranging from seismic isolation to nanotechnology.

In 2003, the corporate group developed low frequency sound absorbing material to control sound transmitted through air, adding new sound-control devices to its product lineup. Then, in 2006 the

group set up its sound control technology as a business operation under the Quiescent brand, in addition to continuing this operation under SWCC Showa

DT upon adoption of the holding company system.

The Quiescent panel was turned into a product using this low frequency sound-absorbing material, using a principle differing completely from those used in conventional sound-absorbing materials. As a structure, it is made up of laminated film which absorbs sound and the mainstay porous materials beneath it. The high sound absorption coefficients enable conversion of sound energy into vibration of the film, based upon the resonance principle as applied to specified frequencies.

The low frequency sound-absorbing materials developed by SWCC Showa DT, in addition to being useful for industry in general and for use in construction, improves acoustics for locales pegged for music appreciation. In particular, it excels in use as regards music especially for the low frequency region below 500Hz, due to its sound absorption coefficients. SWCC Showa DT also has many intellectual property-related filings with authorities, while promoting product development that constantly provides technical information for the benefit of users.

SWCC Showa Device Technology Co. (SWCC Showa DT), which is part of the Showa Holdings Co. group, has produced Quiescent sound-absorbing materials in panel form for use by music lovers wishing to fine tune the acoustics of a room. Placing just a few of these panels can produce an environment conducive to music appreciation. With a high absorption rate, some two to four times more effective than conventional materials such as glass wool, Quiescent has as its key point a materials structure that enables control of resonance.

The corporate group started as Showa Electric Wire & Cable Co., a cable and electric wire maker which was established in 1936. However, from the outset the company was involved in insulation materials such as rubber, for use as coating materials for cable and wiring. In 1947, said technology related to rubber materials as used for wire and cable coatings (including processing of these

Rare Metal Recovery Using Microorganisms

The heavy elements biogeochemistry group at the Advanced Science Research Center (ASRC), Japan Atomic Energy Agency (JAEA) has found that microorganisms under relevant conditions can help recover rare metals, such as platinum (Pt) and palladium (Pd). Platinum is in particular a precious metal that can be used widely as a catalyst, such as for automobile exhaust emissions control and for fuel cell systems, in addition to items such as fash-

ion accessories. The group made the finding upon conducting research on the interaction of actinides with microorganisms at the molecular level.

According to Group Leader Ohnuki Toshihiko, the group is involved in studying the actinide series, which encompasses the fifteen elements on the periodic table with atomic numbers 89 to 103. In the actinides, uranium (U), neptunium (Np) and plutonium (Pu) are present in different oxidation states of trivalent, tetravalent, pentavalent and