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Sumitomo Forestry Co., Ltd.

Sumitomo Forestry Home Tech Co., Ltd.

## **Sumitomo Forestry Home Tech Develops Unique Construction Method to Protect Wooden Houses from Earthquakes**

Sumitomo Forestry Home Tech Co., Ltd. (President: Kunihiko Takagiri; Head Office: Chiyoda-ku, Tokyo), a wholly-owned subsidiary and remodeling specialist of Sumitomo Forestry Co., Ltd. (President and Representative Director: Akira Ichikawa; Head Office: Chiyoda-ku, Tokyo), is gearing up to celebrate the 25th anniversary of the company's founding on October 1, 2013. To commemorate this auspicious occasion, and based on its corporate message, "Technology & Quality 25—Reforest\*: attaining higher quality with high technical prowess," the company plans to provide high-quality remodeling ideas to customers, leveraging more sophisticated technologies, as only Sumitomo Forestry Group can do.

As one of its remodeling ideas to ensure safety and peace of mind, the company announced that it has developed an innovative S-type vibration damper for wooden houses. This is a modified version of the hydraulic damper used in skyscrapers. This damper absorbs and reduces the impact of earthquake tremors on buildings and prevents the deformation of building structures. In addition, the damper is also strong in protecting wooden houses from the vibrations from repeated aftershocks. The company plans to offer "double" the safety, via a unique dual construction method for vibration control and seismic resistance, expanding its lineup of seismic dampers, in addition to conventional seismic resistant construction methods. The company plans to recommend optimal construction methods, depending on the condition of an existing home, by its unique dual construction method combining vibration control and seismic resistance remodeling technologies to achieve home renovation with reassuring strength and comfort.

\*Reforest is a remodeling brand promoted by Sumitomo Forestry Home Tech. Wood, a reusable natural material, is used to create a safe, reassuring, and comfortable house, and give a customer's home new value.

### **■ Features of the Innovative S-type Vibration Damper**

The innovative S-type vibration damper is characterized by its "shear link." The damper converts the shearing stress, caused by the structure moving in an opposite direction, into energy. Developed for houses built using the wooden post-and-beam construction method, the damper is installed lengthwise, and in combination with seismic retrofitting, reduces swaying in the building by roughly 50%. Also, the device is installed between the posts by only taking apart the lathing but without having to dismantle the existing ceiling and floor. In contrast with conventional methods that require the dismantling of the ceiling and floor, the construction time and expense can be reduced by about half the previous cost (excludes finishing). This construction method underwent technological evaluation and received approval from the Japan Building Disaster Prevention Association.