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For Immediate Release

Sumitomo Forestry Co., Ltd.

Introduction of Taika-Guynar, a fire-resistant plywood

~ Jointly developed with Shin-Etsu Chemical for medium- to large-scale constructions ~

Sumitomo Forestry Co., Ltd. (President and Representative Director: Toshiro Mitsuyoshi; headquarters: Tokyo; hereinafter, Sumitomo Forestry) is pleased to announce that in collaboration with Shin-Etsu Chemical Co., Ltd. (President: Shunzo Mori; headquarters: Tokyo; hereinafter, Shin-Etsu Chemical), the two companies have jointly developed Taika-Guynar, a fire-resistant plywood embedded with a tablet-shaped chemical agent consisting of a siloxane compound^{*1} and a flame retardant. Taika - Guynar will be introduced on September 1, 2023. Sumitomo Forestry was responsible for developing the plywood and Shin-Etsu Chemical was responsible for formulating the tablet chemical agent.



Taika-Guynar is applied as a covering on columns, beams and other building materials at a laminated engineered wood factory, thus eliminating the need for on-site work and reducing construction time. Wood-derived Taika-Guynar can replace inorganic fire-resistant covering materials, such as gypsum board, and be used in medium- to large-scale buildings, reducing environmental impact and enhancing decarbonization efforts.

■Taika-Guynar description

Fire-retardant chemicals in tablet form are embedded into holes (10mm in diameter, 15mm in depth) at regular intervals on both the front and back sides of 24mm-thick domestic plywood to provide fire resistance (standard size: length, 1,820mm x width, 910mm x thickness, 24mm). This product utilizes domestic timber and will be commercialized as part of the Guynar Series.^{*2}

Because Taika-Guynar uses a chemical agent in tablet form to maintain the shape of the plywood, it can be easily cut to size using standard woodworking equipment. Unlike other flame-retardant treatments using pressurized injections or similar methods, Taika-Guynar does not need to undergo a drying process after the fire-retardant tablets are embedded. This results in lower environmental impact during production, shorter delivery times and reduced costs. In the event of a fire, the fire retardant vitrifies to form a strong carbonized layer that reduces the risk of fire sparks dispersing to surrounding areas.

In March 2023, Sumitomo Forestry acquired one-hour fire resistance certification from the Ministry of Land, Infrastructure, Transport and Tourism for Taika-Guynar when used as a covering for pillars and beams (24mm x 2 layers). In the future, we plan to promote sales of Taika-Guynar by expanding the range of applications to include ministerial-certified floors and walls.

Sumitomo Forestry Group is engaged in a broad range of global businesses centered on wood, including forestry management, the manufacture and distribution of wood building materials, the contracting of single-family homes and medium- to large-scale wooden constructions, real estate development, and wood biomass power generation. In our long-term vision Mission TREEING 2030, we are seeking to promote the Sumitomo Forestry Wood Cycle, our value chain to contribute to decarbonization for the whole of society by increasing the CO₂ absorption of forests and popularizing wooden buildings that store carbon for long periods of time. Sumitomo Forestry will continue to promote the use of wood and wood-derived materials and the substitution of wood for other materials to accelerate decarbonization in construction.

^{*1} Siloxane compounds: Compounds with silicon, oxygen, silicon (Si-O-Si) siloxane bonds. Siloxane compounds are used in electrical products, electronics, automobiles, construction, cosmetics, healthcare, chemicals and a variety of other industrial fields.

^{*2} Taika-Guynar is the latest in the Guynar series product lineup, which includes S-Guynar, Sumitomo Forestry's original cloth lining plywood.