KRAIBURG
PURASYS

Case Study

Natur Quartier Weißache, Kufstein, Austria

Vibration isolation for a
solid wood housing complex

vibrafoam PURASYS | vibradyn PURASYS

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1. Project

Products: PURASYS **vibra**dyn
Characteristics: vibration decoupling
Installation: 2020
City: Kufstein
Country: Austria
Construction: solid wood
Date built: 2020
Building Owner: Unterberger Immobilien

In the fortress town of Kufstein in Tyrol, Unterberger Immobilien has realized the largest wooden residential building to date with the construction of the Natur Quartier. The showcase project combines the positive aspects of the natural building material and shows how sustainable building can be successfully implemented.

The five-story building was constructed entirely in solid wood and offers the residents a healthy indoor climate in a quiet environment. In this project, the building material wood was not only used for the construction of the building and for the facade, but was also used in the interior, partly visible in the ceiling and wall areas.

However, the physcial properties of wood, especially its sound conductivity, also require suitable measures to minimize vibration and sound transmission.

With PURASYS **vibra**foam and PURASYS **vibra**dyn it is possible to achieve a high level of sound insulation without great effort. For this purpose, the individual residential units are seperated by placing strips of PURASYS **vibra**foam/**vibra**dyn first on the wooden ceiling and then placing the walls on the bearing timbers.

In numerous projects it has already been shown that the bearing of the system components with PURASYS **vibra**foam/**vibra**dyn does not only give the impression of a lower sound transmission, but that the improvement is also physically measurable.

Based on the calculations for the five-storey Natur Quartier in Kufstein a PURASYS **vibra**dyn strips installation was planned. The technical consulting and dimming was carried out in cooperation with our sales partner ISOCELL.

2. Technical details

In order to achieve almost equal deflections in all support points, it was necessary to use four different PURASYS **vibra**dyn types, each with a thickness of 12.5 mm. The PURASYS **vibra**dyn types S75, S150, S350 and S750 are suitable for permanent lads of 0.075 - 0.75 N/mm^2. By using the high-quality bearing material made of PUR, a high level of structure-borne sound insulation could be achieved.

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