Turning Down the Volume in Student Housing

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Take a moment and listen. Really listen. Do you hear that? Chances are that when you paused, you heard a sound. Whether it was annoyingly loud or barely audible, there was a noise, and you heard it. Even when sitting alone in a quiet spot, there is still noise — the hum of an appliance, music in the background, a bird chirping outside the window, traffic in the street, or the low rumble of an airplane overhead.

Impact on People

These are the constant sounds of our everyday lives, and research shows that sound has a powerful impact on us. Sound affects how we feel, how we work, how we sleep, and how we learn. Too much noise can lead to stress, fatigue, lack of focus, anxiety, and lengthier healing times.

Excessive noise in student housing can interfere with studying and sleeping. Prolonged exposure to loud noises has the ability to raise our blood pressure, accelerate breathing, cause irritability and anxiety. It can affect our quality of sleep; it can increase our sensitivity to pain, as well as impair our comprehension, memory and reading ability.

Impact on Business

From student apartments and hotels to offices and hospitals, sound can make or break the effectiveness of a building.

According to a survey of multifamily property managers, noise is the third most frequent complaint made by residents. And these complaints aren't just idle chatter: 20 percent of residents say they would move if there were noisy or annoying neighbors.

According to real estate expert Edward Kelley, one turnover on a rental rate of \$1,120 costs the owner approximately three times that rate in lost revenue. There are several variables that must be taken into consideration - the amount of lost rent, repairs/refresh maintenance, plus administrative costs. These numbers can add up to a significant loss.

Trends

Student housing dynamics are no different -- with housing options becoming increasingly competitive on and off campus as resident expectations continue to set a higher bar. This can lead to competing interests. Increased demand for hard surface flooring and the preference for open floor plans and communal work / study space can come with a bit of a trade-off when it comes to noise.



Not surprisingly, building certifications are evolving and emerging to take acoustics into account when evaluating a space's performance. The U.S. Green Building Council LEEDv4 now includes a focus on airborne sound and in-room sound for commercial buildings, schools and healthcare facilities. And the International WELL Building Institute has set benchmarks for the numerous ways a building and its systems can support human health and wellness, including through sound abatement.

Even without such certifications, owners, managers, housing directors, and contractors recognize the value in noise abatement when creating a superior, competitive building. The good news is that there are materials and tools in the marketplace that can help us understand and mitigate noise.

Why IIC ratings on products aren't enough

Floor covering products are labeled with an IIC rating; however, IIC ratings on a product are not enough. They don't tell the whole story.

IIC ratings represent impact sound transmission. Impact sound is the sound that comes from the impact of an object on a floor or ceiling. Footsteps, dropped objects, jumping, dancing, and the countless things that can seem purposefully annoying over time. Impact sound is sound that is transferred from one room to another below or next door.

The higher the IIC rating, the less noise you hear. The target IBC codes require a 50 IIC rating, however there are many ways to drive performance to high levels and reduce noise complaints.

Solutions

Recognizing this gap in the marketplace, we've conducted extensive testing to provide an estimated IIC rating based on specific floor and ceiling construction, paired with particular flooring types and installation methods where underlayment is and isn't used. This testing produced not only an IIC number but a sound file that allows you to hear the difference.

This stands to bring more science-based decision-making to building design, room design, and product selection. We're already seeing trends that will shape how we advise designers and facility managers through product selection. This information will also shape how we develop products in the future.

As you think about acoustics in student housing and how that impacts your construction and product selection decisions, ask to hear the whole story. Shaw Industries will be attending the Interface Student Housing Conference in Austin on April 4th - 6th, 2018 and will look forward answering questions that you may have that impact flooring choices for your student housing projects.

