

Hardwood / Laminate Flooring Standards

The IIC is a standard in sound proofing for floating and laminate style of flooring but you need to consider the impact on noise even with glue down which some trades will indicate does not require it. In the end it is your responsibility to assure that the noise transfer is minimized.

We provide some comments on this as below and the last paragraph deals with glue down. Cork underlayment is recommended for these and if you choose to not proceed on any underlayment the only issue we must advise you of is if specific complaints are received from occupants of adjacent suites (below), you will be responsible to correct that. Area rugs are also good at providing some sound insulating qualities.

I would like to install an engineered wood using a glue-down installation method using an acoustic underlayment. Can I do this?

No. In recent years, environmental issues have driven glue manufactures to produce a product that is environmentally safe. The formulations have changed and some glue will react with foam underlayment and the bond will be compromised. Also, some underlayment can be torn apart because it is not strong enough to hold the hardwood flooring in place during normal expansion and contraction of wood planks. For glue down application we recommend a cork underlayment only.

What is the industry standard IIC rating?

“Impact Noise”. Section 9.11 has no requirements for control of impact noise transmission. Footstep and other impacts can cause severe annoyance in multi-family residences. Builders concerned about quality and reducing occupant complaint will ensure that floors are designed to minimize impact transmission. A recommended criterion is that bare floors (tested without carpet) should achieve an impact insulation class (IIC) of 55. Some lightweight floors that satisfy this requirement may still cause complaints about low frequency impact noise transmission. Adding carpet to a floor will always increase the IIC rating but will not necessarily reduce low frequency noise transmission. Good footstep noise rejection requires fairly heavy floor slabs or floating floors. Impact noise requirements are being considered for inclusion in future versions of the Code.” *Source: British Columbia Building Code (Canada) – section: Appendix A-9.11.1.1. – pg 529*

We recommend using an underlayment with an FIIC rating of 75 or more and a sound transmission class (STC) rating of 73 of the combined flooring and subfloor-ceiling assembly. Strata Corporation rating requirements vary; please obtain specific rating requirements from your Strata Corporation.

Can I install solid wood flooring over acoustic underlayment?

You cannot nail down solid wood flooring directly over and acoustic underlayment. When you nail through an underlayment and into the subfloor, the impact sound transmission travels through the nails into the subfloor resulting in a loss in the acoustical value of the underlayment. If you want to install solid wood flooring and use an acoustical underlayment, the best way to do it is install the acoustic underlayment under a floating subfloor. And then, install the solid hardwood flooring on the floating subfloor using the manufactures recommendations. The flooring height clearance should be taken into consideration.