

## **Softlon-Tuff - Sound Insulation**

### **Field Impact Isolation Class (FIIC, ISO 717/2)**

**Softlon- Tuff** installed under a 14mm Prefinished Timber floor, FIIC = 56  
(mounted on a 180mm post tensioned slab)

### **Why is impact noise reduction important?**

- The trend towards high comfort wooden floor constructions in new buildings and renovations is rapidly increasing. Impact noise can be a concern for occupants of neighbouring rooms. This is most likely in high rise and multi-level buildings.
- **Softlon- Tuff** Floating Timber Floor Underlay , as an interlayer between the floating floor and structural floor construction, helps to achieve the necessary comfort levels. It does this by providing very good impact noise reduction.

### **What is the “Field Impact Isolation Class”, FIIC?**

- The Field Impact Isolation Class, FIIC, is a measure of the impact noise insulating performance of a floor.
- It is a site specific, single number index for the entire floor, where, the entire floor includes the structural floor, floor covering, and any other components such as a ceiling below.
- The higher the value of the FIIC the better the impact noise insulating performance of the floor.
- The FIIC for **Softlon- Tuff** Floating Floor Underlay installed under a tongue in groove, 14mm thick, prefinished timber floor, and mounted on a 180mm post tensioned slab is 56.
- This is an extremely good rating for a wood flooring system.

### **How is the FIIC of a floorcovering determined?**

- The field test procedure is performed in accordance with the requirements of DIN 52210. This standard describes the procedure for measuring the third octave band normalised impact sound pressure levels for the test floor.
- The test involves a tapping machine being placed in different positions on the floor. The impact sound pressure level is measured in the room below the floor, using a rotating microphone, in the third octave frequency bands. These values are then normalised against the room absorption
- The FIIC value is then obtained in accordance with ASTM E989 (the American analogue of ISO 717/2), by fitting a reference curve to the third octave band normalised sound pressure levels from 100Hz to 3150Hz.