

# **FLOORING & NOISE GUIDELINES**

## **[110817]**

### **ALTAIR**

#### **3 Kings Cross Road Rushcutters Bay Sydney NSW 2011**

**Guidelines issued by the Owners Corporation Strata Plan 64622:**

**Floor Coverings other than carpet with specified underlay, pursuant to By-law No 6.**

Floor coverings are dealt with in By-law 6. You should also obtain a copy of the floor covering checklist.

These guidelines

- 1 are issued by the Owners Corporation pursuant to By-law No 6
- 2 are provided principally with the aim to reduce noise transmission that might unreasonably disturb another Owner or Occupier
- 3 may assist an Owner or Occupier of a Lot considering treating the floor surface in a Lot with a material other than carpet with specified underlay (Dunlop Springtred Ultimate rubber underlay or equivalent – refer to By-law 6)

It should be noted that arguably the ONLY floor which can be normally relied upon to meet acoustic standards is carpeting with the specified underlay. Any installation of a hard floor involves considerable risk for the owner.

Notwithstanding adhering to the minimum ratings provided in these guidelines

- a. the onus to control and reduce appropriately and suitably the transmission of noise that might unreasonably disturb another owner or occupier
  - b. the responsibility of complying with the by-laws,
- remains with the Owner and any Occupier.

As an Owner or Occupier you are obliged to give appropriate consideration to your neighbours and the following behaviours, by way of example, should only be exercised with appropriate circumspection particularly with regard to the time of day/night:

- dragging chairs without felted tips across uncarpeted floors (using rugs and felt tips may help)
- walking about in stiletto heels
- sound levels from sound systems, TVs etc and particularly base sound (“doof, doof” noise!)

## **A beginner's guide to sound transmission measurement and ratings**

Hard and firm floor coverings cause impact noise to transmit to other apartments. Various measuring systems describing the degree of impact noise isolation between apartments exist. Some are theoretical (established/measured under laboratory conditions such as IIC - Impact Isolation Class and which, others are tested/measured on site such as FIIC – Field Impact Isolation Class).

With IIC the higher the number the greater the sound isolation effect. A good IIC standard is 60. 70 is excellent but not realistically achievable with timber, parquetry, ceramic tiles, marble or stone flooring. FIIC takes into account other factors (e.g. slab thicknesses, floor span, underlying ceiling structures, wall structures, etc) which can make a big difference e.g. an IIC60 rated floor may rate FIIC55 'in situ'.

The City of Sydney has some guidelines. The Building Code of Australia introduced new guidelines for impact isolation as of 1 May 2004. A good guide is from the US Federal Housing Authority.

Altair has regard to  $L_n, T_w + c_1$ , the preferred Australian sound transmission measurement standard which is an international standard (ISO), adopted by Australia. With  $L_n, T_w + c_1$  the lower the number the greater the sound isolation effect.

A good  $L_n, T_w + c_1$  standard is 50, 40 is excellent but not realistically achievable with timber, parquetry, ceramic tiles, marble or stone flooring.

The  $c_1$  factor measures the effect of surrounding walls.)  $L_n, T_w$  is generally combined with a  $c_1$  score to give a total acoustic effect.

Altair's specific requirement is that the impact sound insulation rating of an installed floor shall have a weighted standardised impact sound pressure level of  $L'_{nT,w}$  of not greater than 45dB or at least a AAAC 5 Star rating, measured in accordance with AS ISO 140-7 and rated to AS ISO 717-2.

Different wall types and ceiling cavities can have a significant acoustic affect. Two otherwise identical floors with identical insulation in two different locations could, and quite possibly will, have different results.

### ***Polished Concrete Floors***

Polished concrete floors are not permitted.

### ***General requirements***

Where an Owner or Occupier of a Lot proposes to install a floor surface and sound proofing material other than carpet with specified underlay, the following procedure must be followed:

- 1 Document the following
  - 1.1 the type of flooring and sound proofing material proposed
  - 1.2 the location of the flooring and sound proofing material
  - 1.3 a sworn statement confirming that 9mm thick Regupol 4515 acoustic underlay will be used with tiles and/or 8mm thick Regupol 8/4 E48 acoustic underlay will be used with

floating timber floors

- 2 Provide the submission to the Building Manager on behalf of the Executive Committee and the Owners Corporation for prior written approval. The Building Manager, the Executive Committee and Owners Corporation may withhold approval or give it conditionally or unconditionally in its absolute discretion. Any conditions must be complied with by the Owner or Occupier of the Lot.
- 3 During the installation of the flooring system the Owner or Occupier must ensure that inspections are made by the Building Manager on behalf of the Executive Committee and the Owners Corporation of the installation as it proceeds and that these will become part of the written verification. It is an important requirement that the Owner or Occupier ensures that the Building Manager particularly inspects the insulation after it is laid and before the flooring covers the insulation.
- 4 When the installation of the flooring system is complete, the Owner or Occupier of the Lot must provide written verification in a form satisfactory to the Building Manager on behalf of the Executive Committee and the Owners Corporation that the floor system has been installed in accordance with manufacturers' procedures and the by-laws and the guidelines.

**Verification**

Compliance that the installation of the floor surface will ensure compliance with by-laws and the guidelines must be demonstrated by a certificate acceptable to the Building Manager on behalf of the Executive Committee and the Owners Corporation.

The Owners Corporation may, at the expense of the Owner or Occupier of the Lot independently verify that all matters in relation to the installation of the floor surface comply with the by-laws.

**Rating – insulation**

The installation of any floor surface and sound proofing material other than carpet and specified underlay must as a minimum standard have 9mm thick Regupol 4515 acoustic underlay with tiles and 8mm thick Regupol 8/4 E48 acoustic underlay with floating timber floors (or equivalent or better) to reduce the transmission of noise that might unreasonably disturb another Owner or Occupier.

**Rating – Impact Isolation Class (IIC)**

The installation of a floor surface and sound proofing material other than carpet and specified underlay must comply with the following impact isolation levels.

**Altair Impact Noise Criteria for Impact Isolation Class (IIC) for Floors/Ceilings between Apartments**

Source Room (Floor where hard/firm treatment is proposed)	Receiving Room (Room below proposed hard floor treatment)#					
	Bedroom	Living	Kitchen	Bathroom	Family	Entrance

		Room		Laundry	Room	Foyer
Bedroom	58	58	50	n/a	58	n/a
Living Room	62	58	58	n/a	55	n/a
Kitchen	70	62	52	n/a	58	n/a
Bathroom/Laundry	n/a	n/a	52	52	n/a	n/a
Family Room	65	58	58	n/a	n/a	n/a
Entrance Foyer	70	62	52	n/a	n/a	52
<b><i># as at date change to floor covering is approved</i></b>						

***Overriding Obligation***

***Meeting a standard, whether acoustic or otherwise, prescribed in these guidelines or in any by-law does not does not***

- (i) mean that an owner will necessarily achieve appropriate and suitable reductions of noise transmissions that might unreasonably disturb another owner or occupier***
- (ii) exonerate or excuse an owner from an ongoing obligation to reduce appropriately and suitably the transmission of noise that might unreasonably disturb another owner or occupier***