

IMPACT INSULATION CLASSIFICATION (IIC)

It is difficult for architects to work with manufacturer’s data on Δ IIC. It is generally assumed that the Δ IIC values of various components add together to provide a reliable IIC. This is not always correct since the frequency characteristics of each component Δ IIC will affect the outcome. For example, if the deficiencies in the classification system for one component are in the same frequency center band as other components of the system, the total IIC will come up short in the field.

The following chart is our best estimate of IIC for various floor systems based on independent tests of the Acoustic Sleeper (Δ IIC-23) and data from various sources, mostly *without* information on the frequency characteristics. Ceiling system, where indicated, consists of one layer of gypsum board on resilient channels with 3” fiberglass batts in the plenum (Δ IIC-13).

Finish Floors	With Ceiling				Without Ceiling	
	Wood Joists and Trusses		Concrete Deck		Concrete Deck	
	Direct Attachment	Sleeper System	Direct Attachment	Sleeper System	Direct Attachment	Sleeper System
None	43	52	40	64	27	51
Vinyl Plank (LVT)	43	54	40	64	27	51
with pad	64	75	62	85	49	72
Engineered Wood with pad	47	58	45	68	32	55
Wood Strips	43	54	40	64	27	51
with pad	49	58	45	69	32	55
Porcelain, Stone or Ceramic Tile	28	54	40	64	27	51
with crack isolation pad	32	58	45	69	32	55
Polished Concrete	32	58	45	68	32	55
Carpet with pad	53	79	66	89	53	76

Without the Acoustic Sleeper System, finish floor choices are limited to carpet with a pad or luxury vinyl plank (LVT) with a pad. With the Acoustic Sleeper, **any finish floor** becomes an option and no pad is necessary. When remodeling, the Acoustic Sleeper System stays in place, and there is no concern about compliance.