

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 Pad (Δ IIC-23) and data from various sources, mostly *without* information on the frequency characteristics. The ceiling system, where indicated, consists of one layer of gypsum board on resilient channels with 3" fiberglass batts in the plenum (Δ IIC-13).

Impact Insulation Classification	With Ceiling				Without Ceiling	
	Wood Joists and Trusses		Concrete Deck		Concrete Deck	
Finish Floors	Direct	Acoustic Pad	Direct	Acoustic Pad	Direct	Acoustic Pad
	Attachment	System	Attachment	System	Attachment	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	72	66	82	53	69
Sound Transmission Classification	54	55-61	54	55-61	51	61

Without the STC Acoustic Pad System, finish floor choices are limited to carpet with a pad or luxury vinyl plank (LVT) with a pad to meet code requirements for IIC-50. With the STC Acoustic Pad, *any finish floor* becomes an option and no additional pad is necessary. When remodeling, the Acoustic Pad System stays in place, and there is no concern about compliance.