

## Noise Rating Levels

Noise Rating Levels or NR Level Curves are developed by the International Organization for Standardization (ISO) and specify an indoor acoustic environment for different requirements of hearing preservation, speech communication and annoyance, in different applications.

Noise Rating values for different sound pressure levels are tabulated below and are the established sound pressure levels at different frequencies. Noise Ratings are then used to specify the maximum permissible sound power level at each frequency by selecting a single Noise Rating (NR) number. The use of Noise Rating - NR - is widespread across Europe.

Noise Criterion or NC levels are a different set of values developed for the same purpose, the use of Noise Criterion (NC) is mainly used in North America.

## Noise Rating Values (dB)

NR Level	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
NR 20	51	39	31	24	20	17	14	13
NR 25	55	44	35	29	25	22	20	18
NR 30	59	48	40	34	30	27	20	18
NR 35	63	52	45	39	35	32	30	28
NR 40	67	57	49	44	40	37	35	33
NR 45	71	61	54	48	45	42	40	38
NR 50	75	65	59	53	50	47	45	43
NR 55	79	70	63	58	55	52	50	49
NR 60	83	74	68	63	60	57	55	54
NR 65	87	78	72	68	65	62	61	59
NR 70	91	83	77	73	70	68	66	64
NR 75	95	87	82	78	75	72	71	69
NR 80	99	91	86	82	80	78	76	74

## NR Table

The table indicates recommended Noise Rating specifications for some common interior room applications. For advice on how to specify or achieve the recommendations please contact us.

Room Application	NR Level
Sound, Broadcast & Recording Studio	20
Concert Hall	20 - 25
Lecture Theatre, Cinema	25 - 30
Operating Theatre	30 - 35
Multi Bed Ward	35
Wash Room, Kitchen	35 - 40
Individual Room	20 - 30
Ballroom, Banquet Room	30 - 35
Corridor, Lobby	35 - 40
Kitchen	40 - 45
Restaurant	35 - 40
Night Club, Public House, Cafe	35 - 40
Large Retail Space, Supermarket	40 - 45
Boardroom, Single Office	25 - 30

Room Application	NR Level
Reception	30 - 35
Open Plan	35
Assembly Hall	25 - 35
Library, Museum	30 - 35
Wash Room, Toilet	35 - 45
Swimming Pool / Sports Arena	40 - 45
Garage / Car Park	55
Church	25 - 30
Classroom & Lecture Theatre	25 - 35
Laboratory	35 - 40
Warehouse & Garage	45 - 50
Workshop	50 - 65
Bedroom	25
Living Room	30