## Noise - Acoustic - Sealing Systems Selecting an Acoustic Sealing System





	2a. EXTERNAL NOISE		
1. TYPE OF ROOM OF OCCUPANCY	<b>40 - 50 dBA</b> e.g. Quiet residential area with distant traffic noise / rainfall / creeks	<b>50 - 60 dBA</b> e.g. Urban area with traffic noise / distant train noise / quiet restaurants	60 - 70 dBA e.g. Urban area with significant traffic noise/retail activity/busy restaurants/ industrial noise
	40 - 50 dBA Transient e.g. Corridors	2b. ADJACENT ROOM 50 - 60 dBA Occupied e.g. Offices / Classrooms RW RATING OF DOOR SEA	60 - 70 dBA Occupied / Unoccupied e.g. Music / Factories
<ul><li>Carparks</li><li>Control rooms</li><li>Factories</li></ul>	R <sub>w</sub> 22	R <sub>w</sub> 25	R <sub>w</sub> 28
<ul> <li>Bars and lounges</li> <li>Corridors and lobbies</li> <li>Food courts</li> <li>Service areas / utility rooms</li> <li>Shopping malls / supermarkets</li> <li>Stores</li> </ul>	R <sub>w</sub> 25	R <sub>w</sub> 28	R <sub>w</sub> 30
<ul> <li>Airports</li> <li>Apartments¹</li> <li>Art studios</li> <li>Boarding house rooms¹</li> <li>Cafés</li> <li>Guest house rooms¹</li> <li>Gyms</li> <li>Hotel rooms / motel rooms¹</li> <li>Intensive care wards</li> <li>Laboratories</li> <li>Libraries</li> <li>Computer rooms</li> <li>Living areas¹</li> <li>Meeting rooms</li> <li>Offices</li> <li>Recovery rooms</li> </ul>	R <sub>w</sub> 30	R <sub>w</sub> 30	R <sub>w</sub> 35
<ul> <li>Auditoriums</li> <li>Bedrooms / sleeping areas¹</li> <li>Board rooms</li> <li>Cinemas / home theatres</li> <li>Classrooms</li> <li>Consulting rooms</li> <li>Convention centres</li> <li>Court rooms</li> <li>Delivery suites</li> <li>Drama studios</li> <li>Executive offices</li> <li>Places of worship</li> <li>Procedure rooms</li> </ul>	R <sub>w</sub> 30	R <sub>w</sub> 35	R <sub>w</sub> 40
<ul> <li>Drama studios²</li> <li>Film or television studios²</li> <li>Music practice / studio rooms²</li> <li>Music recording studios²</li> <li>Sound stages²</li> <li>Voice over booth²</li> </ul>	R <sub>w</sub> 35+	R <sub>w</sub> 40	R <sub>w</sub> 43 - 45

<sup>&</sup>lt;sup>1</sup> To be used with this guide for external door sealing solutions only. Refer NCC Part F5.5 (b) on page 31.

It must also be noted that this table is a guide only and is not to take precedence over local building codes or standards. Consultation with an acoustic engineer should be considered when specifying solutions for noise problems.

 $<sup>^{\</sup>rm 2}$  Rating of acoustic door to be acoustically designed by a suitably qualified acoustic engineer.

It must be noted that this table does not calculate the end design sound level (LAeq,t), but only the minimum required  $R_W$  rating of a door set.