



Information Sheet No. TFD-2021-12

ACOUSTIC DOORS SYSTEM GUIDE

What is an acoustic doorset?

An acoustic doorset consists of a door leaf (or leaves), door frame, and seal package that has been tested for acoustic performance to AS1191-1985. The results from such tests are expressed in either "Sound Transmission Class" (STC), calculated to AS1276-1979, and/or "Weighted Sound Reduction" (Rw), calculated using AS/NZS 1276.1-1997.

Pyropanel acoustic doorsets are available in a range of STC/Rw ratings from 27 to 50. Many models also incorporate fire and/or smoke resistance levels according to AS1530.4-1997 and AS1530.7-1998. Doorsets with acoustic ratings exceeding 47 STC/Rw are available on request. All tests have been conducted by independent NATA approved laboratories.

Applications

Pyropanel acoustic doorsets are available in both hinged and sliding configurations. Hinged doors can be fitted to either pressed metal or timber door frames. In detailing acoustic door frames it is vital to ensure that the frames are backfilled (where appropriate) and securely fitted to the wall system utilizing acoustically rated methods and sealants.

Typical applications for acoustic doorsets include recording studios, music halls, schools, executive meeting rooms and apartments. Pyropanel acoustic doorsets are capable of incorporating additional features such as ballistic or radiation resistance if required.

Pyropanel also offer a large range of doorsets that combine acoustic resistance with other tested and certified features such as smoke leakage (life safety doors), bullet, intruder or radiation resistance (special purpose doors) and fire resistance, as well as a variety of performance finishes such as hospital grade stainless steel and mirror finishes. For more information on custom designed performance doors, please contact Tasmanian Fire Doors.

Installation

Acoustic doorsets will not meet the desired level of performance unless correctly installed. Misalignment of the door frame and/or door seals will result in noise leakage, compromising the doorsets' performance. Care must also be taken in the installation of the door frame itself as gaps between the frame and wall, or hollow door frames may drastically reduce the doorsets acoustic rating.

Pyropanel recommend that only qualified installers be used.



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Advantages and Features

- Available in single and double leaf designs.
- Can be fitted to either pressed metal or timber door frames.
- Sliding doorsets are available.
- Additional performance for fire, smoke, ballistics, radiation etc. can be incorporated.
- Doorsets can be fitted with a range of seal types, including Raven, Lorient, Zero and fully concealed "Euroseal".
- Door leaves can be decorative, using a range of optional face materials including MDF, Ply, laminate, steel sheet or timber veneer.
- Door leaves are generally thinner and lighter than historic acoustic door designs leading to greater ease of use and durability.
- Independently tested by NATA approved laboratories.

Certification

Pyropanel acoustic doorsets comply with the following Australian Standards:

- AS1191-1985 "Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions".
- AS1276-1999 "Acoustics – Rating of sound insulation in buildings and of building elements – Airborne sound insulation" (now AS/NZ ISO 717.1:2004)

Summary

- Pyropanel acoustic doorsets are fully tested and approved.
- All acoustic doorsets must be carefully installed.
- Doorsets can have multiple performance features.
- Always specify the exact model number of doorset required.

For further information on acoustic doors, please [contact Tasmanian Fire Doors](#)