



APPROVED DOCUMENT

E

How does it affect you and your customers?

As of the 1st July 2003 the revisions to this document make reference to the acoustic performance of floors, walls, ceilings and doorsets and specify the performance level that MUST be achieved in order remain compliant with The Building Regulations.

The fundamental requirement is for the protection against sound from other parts of the building or adjoining buildings for houses, flats and other rooms for residential purposes, including student and nurses' accommodation, hostels, hotels or any building where more than one person or family is living.

For the first time in these regulations, doorsets are specifically referenced and their acoustic performance is specified, dictating that the door density should be at least 25kg/m² or a minimum sound reduction index of 29dB/Rw as per the criteria defined in BS EN ISO 140 and rated as per the requirements of BS EN 717.

Doc E recognises that a doorset without acoustic seals around the perimeter and the threshold will be unlikely to meet the requirement without the addition of a proven acoustic sealing system.

In Requirement E4, Doc E reference "new acoustic conditions in schools" covering all educational establishments and addressing the very specific requirements of Building Bulletin 93 "The Acoustic Design Of Schools" where doorsets are to achieve 30 dB/Rw for all areas except music room where 35 dB/Rw is specified.

The requirements of Document E now very specifically place acoustic performance requirements on the doorset in order for the building to comply with the duty of care imposed by The Building Regulations.

What is the easiest way to meet the requirements of Doc E?

Achieving the requirements of Doc E is not complicated as Royde & Tucker's new range of Acoustic Control Packages make specification and ordering quick and easy. The ground rules to remember for good acoustic sealing of doorsets is to follow these four basic guidelines:

1. Ensure the door construction is of solid core construction and, at least, meets the density requirement of the Approved Document.
2. Specify a suitable acoustically rated perimeter seal to go around the head and jambs, for example the RP120 [12mm x 12mm] Delta seals.
3. Ensure the threshold/door bottom is sealed with an automatic door bottom seal such as the RP8si onto a threshold plate, for example, an RP66 for carpeted areas or RP82 for hard floor surfaces
4. To meet the requirements of the extra weight of the door leaf due to extra width and reduced door closure forces as required for Part M compliance and the increased weight of the door construction as required by Part E and B, ensure you specify an appropriate hinge from the Royde & Tucker Hi-Load range to meet these performance requirements.

With all these elements in place and correctly adjusted then the expected performance based on a nominal thickness 44-45mm thick door leaf will be 32dB/Rw. Document E calls for 29dB/Rw but practical evidence means you should usually allow for the loss of 1-2 dB/Rw on site due to performance losses through the floors, walls and ceilings.

Royde & Tucker offer 3 standard Acoustic Control Packages to meet the requirements of Doc E:

- non-fire rated acoustics only
- FD 30S 1/2 hour fire/smoke + acoustics
- FD 60S 1 hour fire/smoke + acoustics.

Acoustic Control Packages

ACP1 – Doc E for non-fire rated doorsets

Head & jambs perimeter seal

Raven Delta seal RP120
[12 x 12mm]

single or double doorset kit.

Automatic door bottom seal

Raven RP8si
[available in 820, 915 or 1070mm]

Select size according to overall door leaf width.

Threshold plate

Raven RP66 for carpeted areas or RP82 for hard floor surfaces– both comply with Doc M. Available in 1000mm lengths.



ACP2 – Doc E for FD30S Fire and Smoke

Head & jambs perimeter seal

as ACP1

Automatic door bottom seal

as ACP1

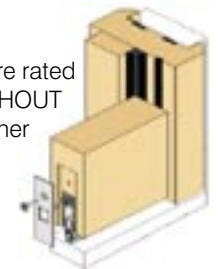
Note: the RP8si is suitable for Fire rated doorsets up to FD60 1 hour WITHOUT the addition of an intumescent liner

Threshold plate

as ACP1

Intumescent seals

Raven RP1504 intumescent strip size 15x4mm available for single or double door sets.



ACP3 – Doc E for FD60S Fire and Smoke

All text as ACP1 pack except:

Intumescent seals

Raven RP3004 intumescent strip size 30x4mm available for single or double door sets.

Always use door sealing solutions which are fully tested and proven!

All the Raven range of sealing systems offered by Royde & Tucker are fully tested and certified to the latest relevant standards and offer you proven and reliable solutions.

RP120 Delta perimeter seal

Acoustics BS EN ISO 140 [32dB/Rw]

Smoke BS 476 Part 31.1

Fire BS 476 Part 22 BS EN1634

In addition to excellent acoustic and smoke containment the Delta seals effectively seal against weather, draught and light and, due to their location behind the doorstop, ensure the door closes more quietly.

RP8Si Automatic door bottom threshold seal

Acoustics BS EN ISO 140 [32dB/Rw on 44-45mm door and up to 39dB/Rw on a 54mm acoustic door]

Fire BS EN 1634 for up to FD60 and BS 476 Part 22

Smoke BS 476 Part 31.1 for smoke containment

RP1504 and RP3004 intumescent strips

Fire BS EN 476 Part 22 and BS EN 1634

RP1504 for FD30 ½ hour

RP3004 for FD 60 1 hour

TS 35 – contribution of intumescent seals to fire resistance of pedestrian type door assemblies with optional smoke seals to TS21 AND TS21 – contribution of edge seals to the control of smoke leakage via door assemblies

RP82 and RP66 threshold plates

Compliant with the requirements of Document M.

By supplying and fitting products that are certified by third party testing to relevant standards you can be confident of your specification.

Contact Royde & Tucker directly or our local agent for further details.

Acoustic Solution Package Enquiry and Order Form

Use this simple illustration to indicate your requirement – we can then quickly and easily supply the appropriate ACP to meet your acoustic control needs or discuss further technical details with you.

Please tick all appropriate boxes and provide details requested.

Doorset detail

(for doorsets up to 2100mm high)

Type of doorset: Single Double

Type of ACP: Acoustic FD30 FD60

Threshold plate: Carpet Hard Floor

Door width: 600–820 820–915 915–1000

Intumescent colour: Brown White

Number of doorsets: _____

Further relevant information: _____



The RAVEN Acoustic Control Package

a sealing system solution
from Royde and Tucker for

The Building Regulations 2000

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Resistance to the passage
of sound



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