

tdsl audiospec
acoustic doorsets



TDSL Audiospec doorsets combine high levels of acoustic performance with excellent fire-resistant and mechanical characteristics. Ideal for meeting rooms, interview suites, recording studios, school music rooms, hotel bedrooms and general offices

Features:

- *single and double door options*
- *with and without glazed apertures*
- *for internal applications*
- *30, 60, 90 and 120 minute fire resistance options*



Tests and Approvals - Acoustic

TDSL Audiospec achieves sound reductions of between 28dB_{Rw} through to 44dB_{Rw} (Weighted Airborne Sound Reduction Index).

TDSL Audiospec doorsets have been acoustically tested and assessed at the UKAS accredited laboratory of The Building Test Centre to BS EN ISO 140 Part 3 1995 and test method conforms to BS EN 20140 Part 2 1993.

Relevant Test Reports and Assessments:

- BTC 11594A
- BTC 11637A
- BTC 11643A
- BTC 11976A
- SRL Assessment c/02/7H/10104/R1

These tests were carried out on full sized and fully operational single and double door assemblies with perimeter seals which enabled, not only high levels of sound reduction to be achieved, but also complied with fire resistance and smoke control specifications.

Testing involved the door assemblies being installed within a suitably constructed dividing wall, that separated the source room from the receiving room. Noise was generated in the source room and sound transmission was measured in the receiving room at third octave intervals in the frequency range 100 - 3150 Hertz (Hz). Results are shown in the form of a 'weighted sound reduction index' - expressed as an *R_w* rating.

The *R_w* rating is a single figure value which identifies the acoustic performance of the assembly and incorporates a correction for the human ear's response to the different frequencies. The table opposite shows performances including those of glazing and different glasses.



Door Type	Weighted Airborne Sound Reduction Index		6mm Pyroshield Safety
	Single Door	Double Doors	
45mm Timbmet Blankfort 30	34dB _{Rw}	33dB _{Rw}	35dB _{Rw}
44mm Timbmet Viscount 30	28dB _{Rw}	-	-
54mm Timbmet Blankfort 60	35dB _{Rw}	35dB _{Rw}	35dB _{Rw}
54mm Timbmet Firespec 60	35dB _{Rw}	35dB _{Rw}	36dB _{Rw}
64mm Timbmet Firespec 90	36dB _{Rw}	36dB _{Rw}	-
64mm Timbmet Firespec 120	37dB _{Rw}	37dB _{Rw}	-
64mm Timbmet Audiospec 44 Square Edges	44dB _{Rw}	41dB _{Rw}	-
64mm Timbmet Audiospec 44 Rebated Edges	40dB _{Rw}	43dB _{Rw}	-



Tests and Approvals - Fire Resistance

Tests have been carried out on acoustic doorset constructions that incorporate a number of established TDSL door brands:

- **TDSL Viscount Plus** - third-party certified 30 and 60 minute fire-resisting doors that combine solid construction, appeal and safety to produce truly cost-competitive doors for internal applications. Choose from six fully-lacquered, real wood veneer finishes. With a ten year guarantee of manufacture and materials.
- **TDSL Blankfort Plus** - a family of third-party certified door blanks designed for internal use that offer tried and tested, aesthetically pleasing, 30 and 60 minute fire-resistance.
- **TDSL Firespec 90 and 120** - high performance 90 and 120 minute fire-resisting doors designed for internal use, particularly where the protection of expensive plant, equipment and important documentation is of paramount importance.
- **TDSL Audiospec 44** - an entirely new and novel design that not only provides up to 44dBRw of sound reduction but also in excess of 30 minutes fire resistance to BS 476 Part 22 1987.

In all door designs, single leaf, double leaf and glazed assemblies were tested.

All door designs have also been tested with realistically sized glazing apertures and various glasses, appropriate to the fire resistance of each door design.

Tests and Approvals - Mechanical Performance

Selected TDSL Audiospec options have also been tested for mechanical performance to DD171 and achieved a severe duty rating.

Supply

TDSL Audiospec doorsets are bespoke manufactured and supplied fully factory assembled, pre-hung with standard hinges and ready for convenient on-site installation in accordance with approved specification.

General Guidance on Sound Insulation

- 25dBRw normal speech easily overheard
- 30dBRw Loud speech clearly overheard
- 35dBRw Loud speech can be distinguished
- 40dBRw Loud speech heard but not intelligible
- 45dBRw Loud speech heard faintly

Typical acoustic door specification

- 30 - 35dBRw general office
- 35 - 38dBRw meeting/interview room
- 35 - 38dBRw hotel bedroom
- 35 - 40dBRw school music room
- 40 - 45dBRw recording studio

7mm Pyrobelite	With Glazing			20.8mm Audiotglass	Fire Rated Performance
	10mm Pyrodur	16mm Pyrobel	21mm Pyrobel		
35dBRw	36dBRw	36dBRw	-	-	FD30
-	-	-	-	-	FD30
-	37dBRw	38dBRw	38dBRw	38dBRw	FD60
-	38dBRw	38dBRw	38dBRw	-	FD60
-	-	-	38dBRw	-	FD90
-	-	-	39dBRw	-	FD120
-	-	-	40dBRw	39dBRw	FD30
-	-	-	-	-	FD30





After-sales care and maintenance of TDSL products

TDSL fire doors and doorsets are designed and manufactured using the best available materials and to the highest possible standards. They will have been dispatched to site in good condition. After delivery it is vital that they are correctly handled and maintained.

Pre-installation preparation, site reception, handling, storage and installation

A 'guidance paper', designed to be of assistance during the planning and execution stages of contracts that involve installation of TDSL fire doors and doorsets, has been prepared and is available on request. In it TDSL advise on all aspects including installer qualifications, preparation of both product and site, hardware and glazing instructions and installation recommendations.

Maintenance, damage protection and troubleshooting

A second 'guidance paper', intended to assist in maintaining a trouble free door installation, is also available on request. In this TDSL makes recommendations on handover, damage prevention, malfunction procedures and includes a comprehensive maintenance check list.

Terms and Conditions of Sale

TDSL is only responsible for the replacement of product and no consequential costs. Replacement of a defective product is subject to handling, storage and decoration being adhered to as recommended in TDSL Terms & Conditions of Sale.

A copy of which is available on request - Ref: TDSL01R&O/001 (for Scotland - Ref: TDSL01G/001).

dictating the standards... setting the pace

TDSL is the UK's premier, specialist fire door products organisation with a comprehensive portfolio of products and services that includes:

tdsl contracts

- fire rated doors
- fire rated doorsets
- hardware and ironmongery
- fire stopping products
- specialist contracts management

tdsl trading

- centralised stockholding and distribution of the largest range of standard fire door products and services

your next step

To find out more please contact your nearest TDSL Sales Office as shown below



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Suite T4 • Quay Plaza • Salford Quays
Manchester M50 3BA

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