



## AC45 ACOUSTIC DOOR

Robust Doors can offer a level of acoustic attenuation from 22 to 54dB by varying the infill of the doorblade and frames. The higher levels of acoustic performance are achieved with custom manufactured doorsets using four-sided frames and acoustic seals.

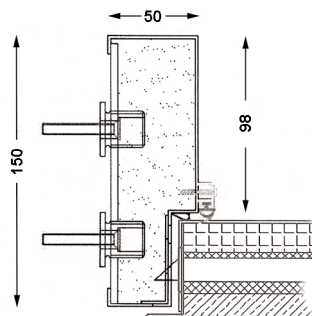
### DOOR LEAF

- Thickness:** 52mm (45kg/m<sup>2</sup> leaf only).
- Material:** 1.2mm corrosion resistant Zintec/Aluzinc sheets as standard, wide variety of colours and finishes available. Also Stainless Steel.
- Infill:** A combination of layers of plasterboard, mineral-fibre and rubberised sheet.
- Construction:** Doorblade manufactured from two 1.2mm sheets lockformed together, by bonding two steel skins around a rigid core, using a no-weld construction.

### DOOR FRAME

- Construction:** Folded from 1.6mm Zintec/Aluzinc and filled with plaster. Screw and tab construction with 4no. adjustable fixing feet per jamb. Acoustic doors are manufactured to suit the structural opening and use a four-sided frame and acoustic seals. To prevent creating a trip hazard a 50mm channel is cut out on site by the contractor for the bottom of the frame. The frame is fitted with 3no. Class 13 stainless steel hinges with 2no. security dog bolts.

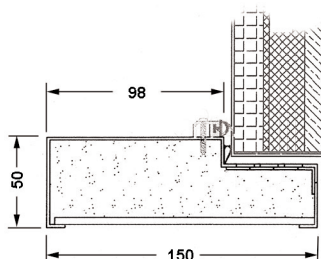
**Profile:**



### THRESHOLD

- Standard:** Integral with frame.

**Profile:**



### FINISHES

- Standard:** Pre-primed steel (approximating to BS10A05 Goosewing Grey) requiring site painting.
- Optional:** Polyester Powder Coating from standard colour range.

### SIZES

- Size:** Doors are custom manufactured in 10mm increments for single openings 690mm to 1200mm and double openings 1290mm to 2400mm, at heights up to 2700mm. Contact the Sales office for special configurations and finishes.



ACOUSTIC





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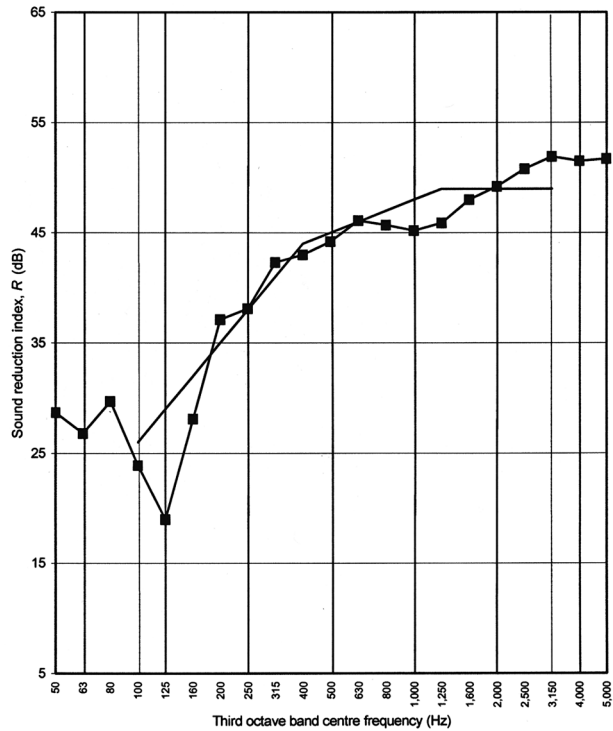


## ACOUSTIC PERFORMANCE

Rating: According to BS EN ISO 717-1:1997

$R_w(C;C_{tr}) = 45 (-3;-9) \text{ dB}$

Frequency (Hz)	R One-third octave (dB)
50	28.7
63	26.8
80	29.7
100	23.9
125	19.0
160	28.1
200	37.1
250	38.1
315	42.3
400	43.0
500	44.2
630	46.1
800	45.7
1,000	45.2
1,250	45.9
1,600	48.0
2,000	49.2
2,500	50.8
3,150	51.9
4,000	51.5
5,000	51.7



x R adjusted for filler wall  
o R within 6 dB of filler wall

### Notes:

1. The above performances were tested by the BRE on 7th March 2006, test report 228403.
2. Tested to BS EN ISO 140-3: 1995
3. Single number quantities calculated in accordance with BS EN ISO 717-1:1997
4. The tests were undertaken on doors up to 2100mm in height only. Robust cannot certify performance above that.

## INSTALLATION

*Acoustic Doors* Due to the weight and reduced tolerances on doors above 45dB it is necessary for Robust to install these doors in order to maintain the tested performance levels.

ACOUSTIC

