Bolton Gate Company

FIRE SHUTTER - FIREROLL ACOUSTIC

Data Sheet ref. Fire 4

February 22

FIRE SHUTTER - FIREROLL ACOUSTIC E120

SPECIFICATION SUMMARY

Bolton Gate Company's Fireroll range of roller shutters is the most comprehensive available in the market. A further addition is the Fireroll Acoustic E120 which combines fire resistance with a high degree of sound reduction.

During extensive testing at Salford University Department of Acoustics and two Fire Test Laboratories, the door achieved a sound reduction of a maximum 25.2dB (at 2000Hz) with a 22dB Rw coupled with a rating of E120 when tested in accordance with EN1634-1.

In keeping with the same testing, the shutter is also rated EW90 or EW120 dependent on size for face fixed arrangements.

A special double curtain arrangement is also available which reduces sound transmission further to a maximum of 39.1dB (at 2000Hz) with a 32dB Rw.

Applications include:
Any application where fire and sound compartmentation are required but ideally suited to: -
School kitchens in multi function school halls, Exhibition Halls, Recording Studios, Warehouses & Factories.

Performance Characteristics:
Resistance to Fire: E90 or E120 (Both internal & external)
Sound Reduction: 22db RW

Fire: Tested to EN1634-1 all in accordance with EN13501- 2; EN13241; EN16034; EN15269
Acoustic: Tested to BS EN ISO 10140-2:2010

Key Attributes:
Fire rated acoustic shutter.
Sound insulation.
CE Marked fire shutter.
Bespoke, compact design.
Multifunctioning as a security shutter.

THIS FIRE SHUTTER PRODUCT IS CE MARKED IN KEEPING WITH THE LATEST STANDARDS.

Waterloo Street, Bolton, BL1 2SP, UK t 01204 871000 e sales@boltongate.co.uk w www.boltongate.co.uk

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Operation
All shutters are electrically operated by a 230-volt nominal single phase or 400-volt nominal three phase Speedsafe motor mounted on one endplate and have adjustable limit switches incorporated to stop the shutter at the end of each travel. A pull cord and hand chain are provided for use in the event of power failure.

Standard operation is via a low-level push button station with emergency stop button.

In a fire condition, gravity failsafe closing is activated by a 24 -volt DC signal (0.37 amps) from the client's fire alarm panel to the auto reset solenoid which releases the motor brake and is backed up by a fusible link.

A safety brake is supplied to comply with the safeguarding requirements of EN 12604.

Curtain
Shutter curtains are constructed from 100mm high flat section continuously interlocked galvanised steel laths which are securely held in place by steel end locks. Each lath is infilled with fire resisting acoustic material.

Bottom Rail
The bottom rail comprises a standard lath fitted with a galvanised steel trim section.

Side Guides
Vertical guides are formed from galvanised steel double rebate channels and are supplied with suitable profiles for fixing to the structure.

Roller
The roller is constructed from seamless steel tube of adequate diameter to resist deflection and held in bearings or cups attached to the endplates

Endplates
Zinc plated mild steel of appropriate thickness relative to door size and supplied with angles for fixing to the structure.

Coil Casing
A galvanised steel coil casing is supplied to maintain the fire seal at the head.

Finish
Fireroll Acoustic E120 is supplied with most parts galvanised as standard. Where non-galvanised parts are utilised, these are finished with one coat of primer paint

Maximum Sizes
7000mm wide x 5000mm high
12000mm wide – height dependent (please contact our sales team to discuss)

Weight
Varies with opening size dependent on lath/barrel/casing requirements but approximately 50kgs/m^2.

Options
- Heat / smoke detectors.
- Audio visual warning.
- Factory finish comprising white plastisol to internal curtain face (coil side) with a polyester powder coat finish to external face from a range of standard RAL colours.
- Grade 304 or 316 stainless steel.
- Double curtain arrangement with increased Rw.

To specify this product please state:
Fire Shutter—Fireroll Acoustic E120 shall be by Bolton Gate Company Ltd, Waterloo Street, Bolton BL1 2SP, UK
Tel: 01204 871001;
E-mail: sales@boltongate.co.uk **Web:** www.boltongate.co.uk

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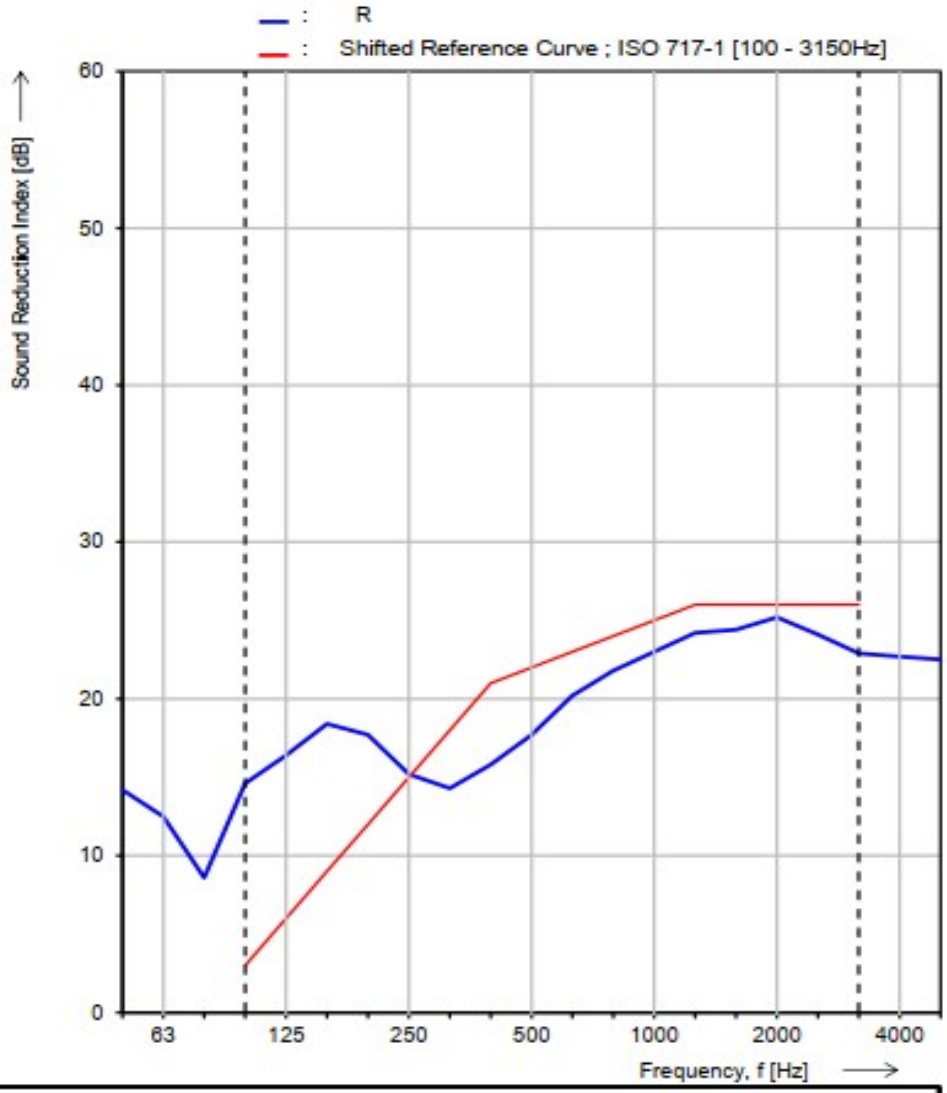
Extract taken from test report by Salford University Acoustic Department for the Fire Shutter - Fireroll Acoustic: -

Source Room Volume:	135 m^3	Ambient Pressure:	100.5 kPa
Source Room Temperature:	21.8 °C	Measured Mass per unit area:	17.5 kg/m^2
Source Room Relative Humidity:	37.5 %	Curing Time:	Not Applicable
Receiving Room Volume:	225 m^3		
Receiving Room Temperature:	21.1 °C		
Receiving Room Relative Humidity:	39.5 %		

Frequency f [Hz]	R ⅓ octave [dB]
50	14.2
63	12.5
80	8.6
100	14.6
125	16.4
160	18.4
200	17.7
250	15.2
315	14.3
400	15.8
500	17.7
630	20.2
800	21.8
1000	23.0
1250	24.2
1600	24.4
2000	25.2
2500	24.1
3150	22.9
4000	22.7
5000	22.5



Rating according to BS EN ISO 717-1

R_w (C;Ctr) = 22 (-1 ; -2) dB

$C_{50-3150}$ = 0 dB ; $C_{50-5000}$ = 0 dB ; $C_{100-5000}$ = 0 dB

$C_{tr,50-3150}$ = -3 dB ; $C_{tr,50-5000}$ = -3 dB ; $C_{tr,100-5000}$ = -2 dB

Evaluation based on laboratory measurement results obtained in one-third-octave bands by an engineering method.