



CERTIFICATE OF APPROVAL

No CF 452

This is to certify that, in accordance with
CERTIFIRE's Rules for Certification
The undermentioned products of

Insulated Roller Shutter Products

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Have been assessed against the requirements of the Technical Schedule(s)
denoted below and are approved for use subject to the conditions
appended hereto:

CERTIFIED PRODUCT

Fireflex R

TECHNICAL SCHEDULE

TS30 Industrial Type Fire
Resisting Doorsets

Signed and sealed for and on behalf of CERTIFIRE

Kenneth J Knight
Chairman - Management Council

Issued: 6th April 2006
Revised: 27th July 2006
Valid to: 5th April 2011

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Only valid when authentic
CERTIFIRE Seal is in place



CERTIFICATE No CF 452

INSULATED ROLLER SHUTTER PRODUCTS

Fireflex R

1. This approval relates to the performance of a type of rolling shutter door with insulation material known as FIREFLEX R. The shutter is designed to suit openings in masonry/concrete construction and fire protected steel structure up to 7m by 7m and fire resistance periods up to 4 hours.

The performances given Tables 1 to 6 are based on a fire test and a subsequent assessment to BS 476: Part 22: 1987 'Methods for determination of the fire resistance of non-loadbearing elements of construction'.

The assessment may be summarised as follows:

- The assessed designs of shutter are intended for the protection of openings in masonry/concrete structure or fire protected steel structure up to a maximum clear opening size of 7m wide by 7m high and fire resistance periods up to 4 hours.
- Use of recessed guides.
- Use of an alternative bottom rails.
- Variation of endplate thickness.
- The use of barrel support frames.
- Alternative fixing method.

2. This certification is designed to demonstrate compliance of the product or system specifically with Approved Document B (England and Wales), Section D of the Technical Standards (Scotland), Technical Booklet E (N. Ireland). If compliance is required to other regulatory or guidance documents there may be additional considerations or conflict to be taken into account.'

3. The product is approved on the basis of:

- i) Initial type testing.
- ii) A design appraisal against TS30.
- iii) Certification of quality management system to ISO 9001: 2000.
- iv) Inspection and surveillance of factory production control
- v) Audit testing

4. The approval relates to on going production. Product and/or its immediate packaging is identified with the manufacturers' name, the product name or number, the CERTIFIRE name or name and mark, together with the CERTIFIRE certificate number and application where appropriate.



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Table 1: 1 Hour Fire Resistance

Barrel Support Frames	Not Required
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Width m	2.5						
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	
	Diameter mm	Thick mm		Size	Number		
	3.0	127.0	3.2	25	10	2	0.7
	4.0	139.0	3.0	30	10	2	0.7
	7.0	168.3	3.2	30	10	3	0.7
Width m	3.0						
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	
	Diameter mm	Thick mm		Size	Number		
	2.5	139.0	3.0	30	10	2	0.7
	4.5	168.3	3.2	30	10	3	0.7
	7.0	168.3	5.0	30	12	3	0.7
Width m	4.0						
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	
	Diameter mm	Thick mm		Size	Number		
	3.5	168.3	5.0	30	12	3	0.7
	7.0	197.7	6.3	40	12	3	0.7
Width m	5.0						
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	
	Diameter mm	Thick mm		Size	Number		
	3.5	197.7	6.3	40	12	3	0.7
	5.0	219.0	6.3	55	12	3	0.7
	7.0	273.0	6.3	50	12	3	0.7
Width m	6.0						
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	
	Diameter mm	Thick mm		Size	Number		
	2.1	197.7	6.3	40	12	3	0.7
	2.5	219.0	6.3	55	12	3	0.7
	5.5	273.0	6.3	50	12	3	0.7
	7.0	323.0	6.3	50	14	3	0.7
Width m	7.0						
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	
	Diameter mm	Thick mm		Size	Number		
	3.0	273.0	6.3	50	12	3	0.7
	5.5	323.0	6.3	50	14	3	0.7



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Table 2: 2 Hours Fire Resistance

Barrel Support Frames	Not Required					
Width m	2.5					
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm
	Diameter mm	Thick mm		Size	Number	
4.0	168.3	3.2	30	10	3	0.7
7.0	168.3	5.0	30	12	3	0.7
Width m	3.0					
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm
	Diameter mm	Thick mm		Size	Number	
2.5	168.3	3.2	30	10	3	0.7
4.5	168.3	5.0	30	12	3	0.7
7.0	197.7	6.3	40	12	3	0.7
Width m	4.0					
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm
	Diameter mm	Thick mm		Size	Number	
4.0	197.7	6.3	40	12	3	0.7
5.0	219.0	6.3	55	12	3	0.7
7.0	273.0	6.3	50	12	3	0.7
Width m	5.0					
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm
	Diameter mm	Thick mm		Size	Number	
2.5	219.0	6.3	55	12	3	0.7
5.0	273.0	6.3	50	12	3	0.7
7.0	323.0	6.3	50	12	4	0.7
Width m	6.0					
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm
	Diameter mm	Thick mm		Size	Number	
2.5	273.0	6.3	50	12	3	0.7
4.5	323.0	6.3	50	12	3	0.7
Width m	7.0					
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm
	Diameter mm	Thick mm		Size	Number	
2.5	323.0	6.3	50	12	3	0.7



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Table 3: 4 Hours Fire Resistance

Barrel Support Frames	Not Required
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Width m	2.5		Axle diameter mm	Endplate Bolts		Curtain thickness mm	
Height m	Diameter mm	Thick mm		Size	Number		
	2.5	168.3	3.2	30	10	3	0.7
	4.0	168.3	5.0	30	12	3	0.7
	7.0	197.7	6.3	40	12	4	0.7
Width m	3.0		Axle diameter mm	Endplate Bolts		Curtain thickness mm	
Height m	Diameter mm	Thick mm		Size	Number		
	2.4	168.3	5.0	30	12	3	0.7
	4.5	197.7	6.3	40	12	3	0.7
	6.0	219.0	6.3	55	12	4	0.7
	7.0	273.0	6.3	50	12	4	0.7
Width m	4.0		Axle diameter mm	Endplate Bolts		Curtain thickness mm	
Height m	Diameter mm	Thick mm		Size	Number		
	2.5	219.0	6.3	55	12	3	0.7
	5.0	273.0	6.3	50	14	4	0.7
	7.0	323.0	6.3	50	16	4	0.7
Width m	5.0		Axle diameter mm	Endplate Bolts		Curtain thickness mm	
Height m	Diameter mm	Thick mm		Size	Number		
	2.5	273.0	6.3	50	12	4	0.7
	4.0	323.0	6.3	50	14	4	0.7
Width m	6.0		Axle diameter mm	Endplate Bolts		Curtain thickness mm	
Height m	Diameter mm	Thick mm		Size	Number		
	2.2	323.0	6.3	50	16	3	0.7



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Table 4: 1 Hours Fire Resistance

Barrel Support Frames	Required
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Width m	4.0						
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	BSF number
	Diameter mm	Thick mm		Size	Number		
6.5	127.0	3.2	25	10	3	0.7	1
6.5	127.0	3.2	30	10	3	0.7	1
7.0	168.3	3.2	30	12	3	0.7	1
Width m	5.0						
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	BSF number
	Diameter mm	Thick mm		Size	Number		
3.5	127.0	3.2	25	12	3	0.7	1
4.5	139.0	3.0	30	12	3	0.7	1
7.0	168.3	3.2	30	12	3	0.7	1
Width m	6.0						
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	BSF number
	Diameter mm	Thick mm		Size	Number		
2.2	127.0	3.2	25	12	3	0.7	1
2.5	139.0	3.0	30	12	3	0.7	1
5.0	168.3	3.2	30	12	3	0.7	1
7.0	168.3	5.0	30	12	3	0.7	1
Width m	7.0						
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	BSF number
	Diameter mm	Thick mm		Size	Number		
3.0	168.3	3.2	30	12	3	0.7	1
5.0	168.3	5.0	30	12	3	0.7	1
7.0	197.7	6.3	40	12	3	0.7	1



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Table 5: 2 Hours Fire Resistance

Barrel Support Frames	Required
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Width m	3.0						
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	BSF number
	Diameter mm	Thick mm		Size	Number		
7.0	127.0	3.2	25	10	3	0.7	1
Width m	4.0						
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	BSF number
	Diameter mm	Thick mm		Size	Number		
3.5	127.0	3.2	25	12	3	0.7	1
4.5	139.0	3.0	30	12	3	0.7	1
7.0	168.3	3.2	30	12	3	0.7	1
Width m	5.0						
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	BSF number
	Diameter mm	Thick mm		Size	Number		
2.5	139.0	3.0	30	12	3	0.7	1
4.5	168.3	3.2	30	12	3	0.7	1
6.0	168.3	5.0	30	12	3	0.7	1
7.0	197.7	6.3	40	12	3	0.7	1
Width m	6.0						
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	BSF number
	Diameter mm	Thick mm		Size	Number		
2.5	168.3	3.2	30	12	3	0.7	1
4.0	168.3	5.0	30	12	3	0.7	1
7.0	197.7	6.3	40	12	3	0.7	1
Width m	7.0						
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	BSF number
	Diameter mm	Thick mm		Size	Number		
2.5	168.3	5.0	30	12	3	0.7	1
6.0	197.7	6.3	40	12	3	0.7	1
7.0	219.0	6.3	55	12	3	0.7	1



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Table 6: 4 Hours Fire Resistance

Barrel Support Frames	Required
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Width m	3.0							
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	BSF number	
	Diameter mm	Thick mm		Size	Number			
	4.5	127.0	3.2	30	12	3	0.7	1
	5.0	139.0	3.0	30	12	3	0.7	1
	7.0	168.3	3.2	30	12	3	0.7	1
Width m	4.0							
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	BSF number	
	Diameter mm	Thick mm		Size	Number			
	2.5	139.0	3.0	30	12	3	0.7	1
	4.5	168.3	3.2	30	12	3	0.7	1
	5.0	168.3	5.0	30	12	3	0.7	1
	7.0	197.7	6.3	40	12	4	0.7	1
Width m	5.0							
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	BSF number	
	Diameter mm	Thick mm		Size	Number			
	2.5	168.3	3.2	30	12	3	0.7	1
	3.0	168.3	5.0	30	12	3	0.7	1
	7.0	197.7	6.3	40	14	4	0.7	1
Width m	6.0							
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	BSF number	
	Diameter mm	Thick mm		Size	Number			
	2.0	168.3	5.0	30	12	3	0.7	1
	5.0	197.7	6.3	40	12	4	0.7	1
	6.0	219.0	6.3	55	14	4	0.7	1
	6.0	273.0	6.3	50	14	4	0.7	1
Width m	7.0							
Height m	Barrel		Axle diameter mm	Endplate Bolts		Curtain thickness mm	BSF number	
	Diameter mm	Thick mm		Size	Number			
	3.0	197.7	6.3	40	14	3	0.7	1
	4.0	219.0	6.3	55	16	3	0.7	1
	7.0	273.0	6.3	50	16	3	0.7	1