



EFFECTIS ERA AVRASYA TEST VE BELGELENDİRME A.Ş.

PRODUCT CERTIFICATION BODY

TOSB TAYSAD Organize San. Böl. 1. CD. 15. Yol No: 1 Şekerpinar -
Çayırova-Kocaeli-TÜRKİYE

www.efectis.com

TYPE APPROVAL CERTIFICATE

Certificate Nr: 2013 - EEA - 1008

This certificate attests that all provisions concerning the “Product Design File” provided by the manufacturer, for the product(s) defined below;

Single Acting - Single Leaf Doorset (With/Without Glazing)
Single Acting - Double Leaf Doorset (With/Without Glazing)

E60 , EI₂60

Placed on the market by

**THEO SCHRÖDERS ENTWICKLUNG AND BERATUNG GMBH
GERHARD-WELTER-STR-7-DE 418212-ERKELENZ**

And Produced In the Factory

**THEO SCHRÖDERS ENTWICKLUNG AND BERATUNG GMBH
GERHARD-WELTER-STR-7-DE 418212-ERKELENZ**

Is in conformity with the requirements of “SAFE4FIRE PRODUCT CERTIFICATION SCHEME - MODEL TAC (TYPE APPROVAL CERTIFICATION)”, as inspected and confirmed by the certification body - EFFECTIS ERA AVRASYA TEST VE BELGELENDİRME A.Ş.; thus gaining the rights to affix the below logo(s) on the product and the related marketing material, specified and limited as given in the “Contract of Certification”;



This certificate was first issued on **21.06.2013** and remains valid as long as the conditions laid down in the technical specification of the reference product certification scheme, or the product type itself, is not modified significantly to affect the contents of the product design file.

The justification of this Type Approval Certificate is recorded in Product Design File Inspection Report, nr : TDIR-S4F-008 dated 21.06.2013 .

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Product Certification Manager



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Testing. Advising. Assuring.

Title:

Classification of Fire
Resistance Performance
In Accordance With
EN 13501-2: 2007

Notified Body No:

0833

Product Name:

System Schroeders EIS

Report No:

302467

Issue No:

1

Prepared for:

**Theo Schroeders
Entwicklung & Beratung
GmbH**

Gerhard-Welter-Str.7,
41812 Erkelenz,
Germany

Date:

29th March 2011

This classification report consists of eleven pages and may only be used or reproduced in its entirety.

1. Introduction

This classification report defines the classification assigned to the element 'System Schroeders EIS' in accordance with the procedures given in BS EN 13501-2:2007.

2. Details of classified product

2.1 General

For classification purpose, the element 'System Schroeders EIS' is defined as a fire and smoke resisting doorset assembly. 'System Schroeders EIS-1' and 'System Schroeders EIS-2' relate to the same product in single and double-leaf configurations, respectively.

2.2 Product description

The element, 'System Schroeders EIS', is fully described in the test reports referenced below and provided in support of classification detailed in Clause 3.1.

The 'System Schroeders EIS' is of an asymmetric design and was therefore separately tested in single and double-leaf configuration opening towards and away from the heating conditions of the tested.

3. Test reports in support of classification

3.1 Summary of test reports

Name of laboratory	Name of sponsor	Test report no.	Test method
Exova Warringtonfire Notified Body No. 0833	Theo Schroeders Entwicklung & Beratung GmbH	WF Test Report No. 169170/A	EN 1634-1: 2000
Test Results:			
Integrity	Sustained flaming	133 minutes*	
	Gap gauge	133 minutes*	
	Cotton Pad	133 minutes*	
Insulation		84 minutes	
Radiation	time to exceed 15 kW/m ²	133 minutes*	
*The test duration			
Specimen Details:			
Specimen reference:	System Schroeders EIS-1		
Configuration:	Single-acting, single-leaf		
Door leaf size:	2281 high by 1182 mm wide by 68 mm thick		
Opening Direction:	Away from heating conditions		
Supporting Construction:	High density rigid supporting construction		

Name of laboratory		Name of sponsor	Test report no.	Test method
Exova Warringtonfire Notified Body No. 0833		Theo Schroeders Entwicklung & Beratung GmbH	WF Test Report No. 172152	EN 1634-1: 2000
Test Results:				
		Doorset A	Doorset B	
Integrity	Sustained flaming	113 minutes	132 minutes*	
	Gap gauge	132 minutes*	132 minutes*	
	Cotton Pad	92 minutes	119 minutes	
Insulation		69 minutes	74 minutes	
Radiation	time to exceed 15 kW/m ²	132 minutes*	132 minutes*	
*The test duration				
Specimen Details:				
		Doorset A	Doorset B	
Specimen reference:	System Schroeders EIS-1		System Schroeders EIS-1	
Configuration:	Single-acting, single-leaf		Single-acting, single-leaf	
Door leaf size:	2281 mm high by 1182 mm wide		2286 mm high by 1192 mm wide	
Door Leaf Thickness	68 mm		68 mm	
Opening Direction:	Towards heating conditions		Away from heating conditions	
Supporting Construction:	High density rigid supporting construction			

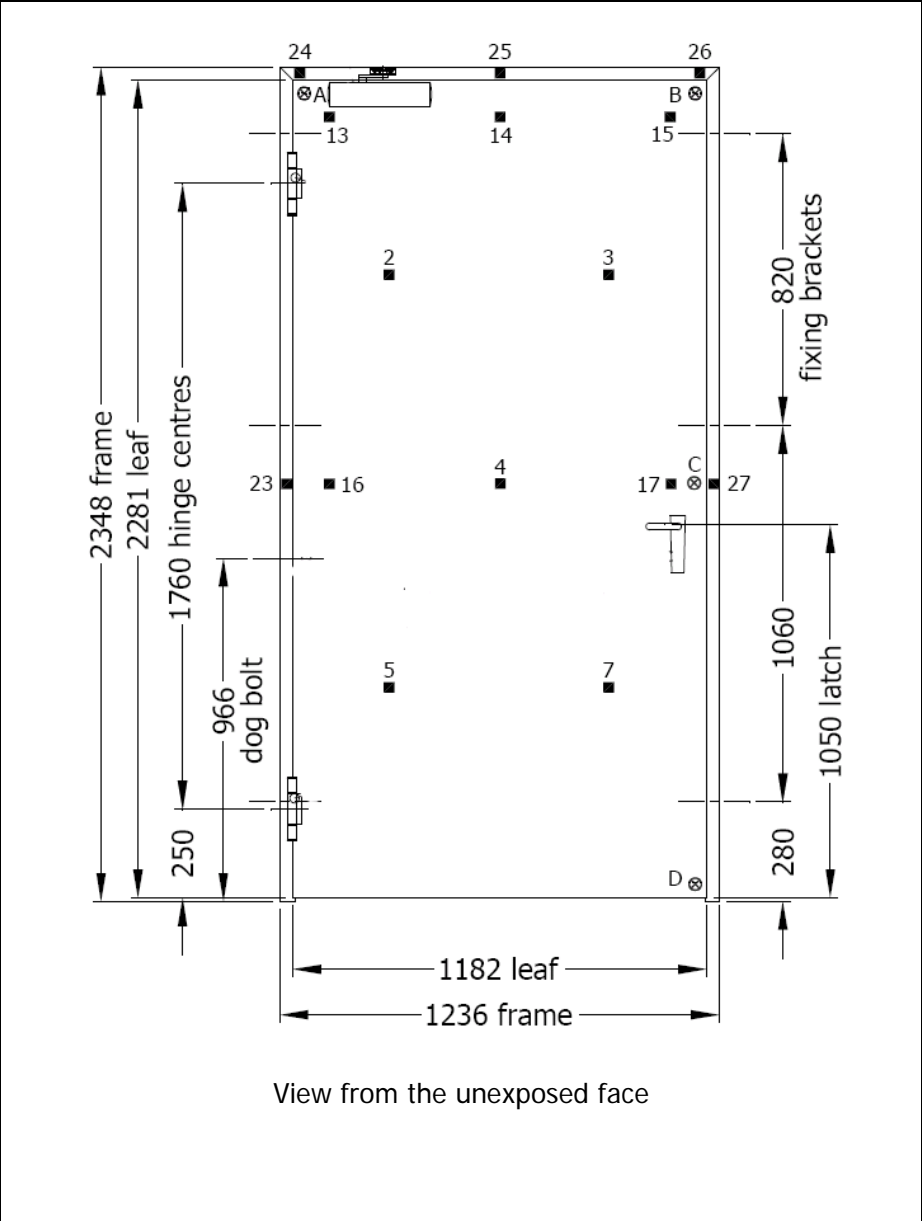
Name of laboratory		Name of sponsor	Test report no.	Test method
Exova Warringtonfire Notified Body No. 0833		Theo Schroeders Entwicklung & Beratung GmbH	WF Test Report No. 183359	EN 1634-1: 2008
Test Results:				
Integrity	Sustained flaming		83 minutes	
	Gap gauge		86 minutes*	
	Cotton Pad		83 minutes	
Insulation	Area 1 (Doorset)		69 minutes	
	Area 2 (Glazing)		79 minutes	
Radiation	time to exceed 15 kW/m ²		86 minutes*	
*The test duration				
Specimen Details:				
Specimen reference:	System Schroeders EIS-2			
Configuration:	Single-acting, double-leaf			
Door leaf size:	2481 mm high by 1277 mm wide by 68 mm thick			
Opening Direction:	Away from heating conditions			
Supporting Construction:	Steel stud partition			

Name of laboratory		Name of sponsor		Test report no.		Test method	
Exova Warringtonfire Notified Body No. 0833		Theo Schroeders Entwicklung & Beratung GmbH		WF Test Report No. 191065		EN 1634-1: 2008	
Test Results:							
Integrity	Sustained flaming			132 minutes			
	Gap gauge			132 minutes*			
	Cotton Pad			121 minutes			
Insulation			71 minutes				
Radiation	time to exceed 15 kW/m ²			132 minutes*			
*The test duration							
Specimen Details:							
Specimen reference:		System Schroeders EIS-2					
Configuration:		Single-acting, double-leaf					
Door leaf size:		2481 mm high by 1414 mm and 1144 mm wide by 68 mm thick					
Opening Direction:		Towards heating conditions					
Supporting Construction:		High density rigid supporting construction					

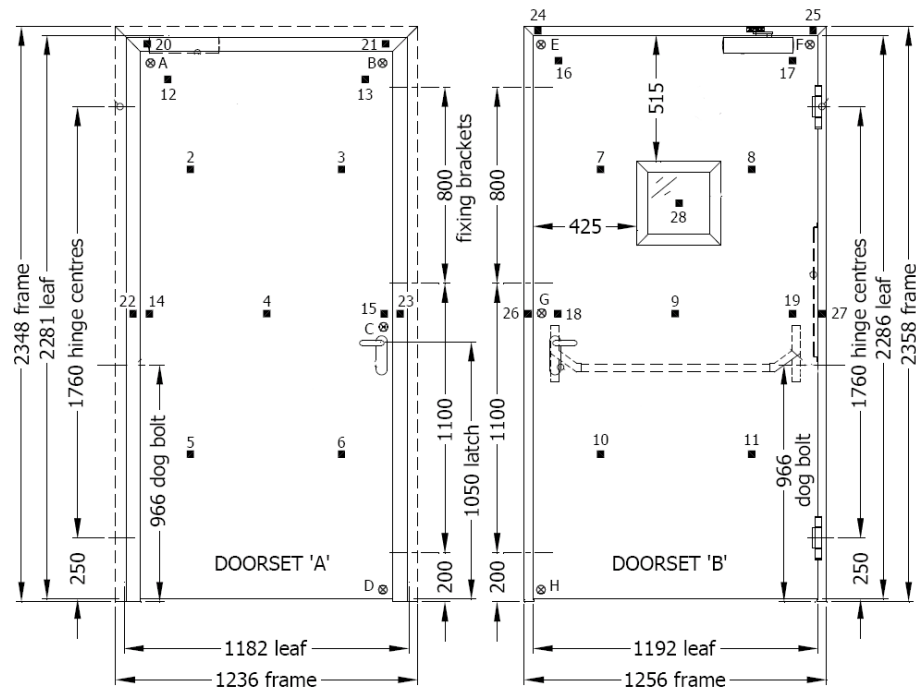
Name of laboratory		Name of sponsor		Test report no.		Test method	
MPA NRW Notified Body No. 0432		Theo Schroeders GmbH		120003050-01		EN 1634-3: 2005	
Test Results:							
Leakage Against S_a Classification (m³/h/m) – limit = 3 m³/h/m							
Pressure/Temperature		Specimen 1 (closing side)			Specimen 2 (opening side)		
25 Pa/Ambient		1.41			1.47		
Leakage Against S_m Classification (m³/h) – limit = 20 m³/h							
25 Pa/200°C		8.96			5.32		
50 Pa/200°C		18.59			11.06		
25 Pa/Ambient		10.51			9.36		
50 Pa/Ambient		14.24			13.10		
Specimen Details:							
Specimen reference:		System Schroeders EIS-1					
Configuration:		Single-acting, single-leaf					
Door leaf size:		2996 mm high by 1512 mm by 68 mm thick					
Opening Direction:		Both directions					

Summary of WF Test Report No. 169170/A

- Door Construction**
- 1. Door Leaf Facings**
1 mm thick folded mild steel
 - 2. Door Core**
See test report WF Test Report No. 169170/A
 - 3. Door Frame**
1.5 mm thick profiled mild steel with ordinary sand/cement mortar infill
 - 4. Hinges**
2 no. Fa. Schwarte KO-hinge DIN 18272
 - 5. Closer**
Dorma Door Controls TS83 (positioned on unexposed face but disconnected for purposes of test)
 - 6. Lock**
Fa. Wilhelm Schlechtendahl, DIN 18250
 - 7. Dog Bolt**
1 no. M12 x 20 mm, mild steel
 - 7. Door Frame Gasket**
GZ-delft



Summary of WF Test Report No. 172152



View from the unexposed face

Door Construction

1. Door Leaf Facings

Folded mild steel, 1 mm thick (Doorset A) and 1.5 mm thick (Doorset B)

2. Door Core

See test report WF Test Report No. 172152

3. Door Frame

Profiled mild steel with ordinary sand/cement mortar infill, 1.5 mm thick (Doorset A) and 2 mm thick (Doorset B)

4. Hinges

Doorset A, 2 no. Fa. Schwarte KO-hinges DIN 18272; Doorset B, 2 no. Fa. Schwarte KO-hinges KOF-72 EN 1935

5. Closer

Dorma Door Controls TS83 (exposed face of Doorset A)
Vachette MF 11200 (unexposed face of Doorset B, inactive for test)

6. Lock

Doorset A, Fa. Wilhelm Schlechtendahl, DIN 18250; Doorset B, Dorma SVP 2277 V

7. Dog Bolt

1 no. per door, mild steel, M12 x 20 mm (Doorset A) and M14 x 35 mm (Doorset B)

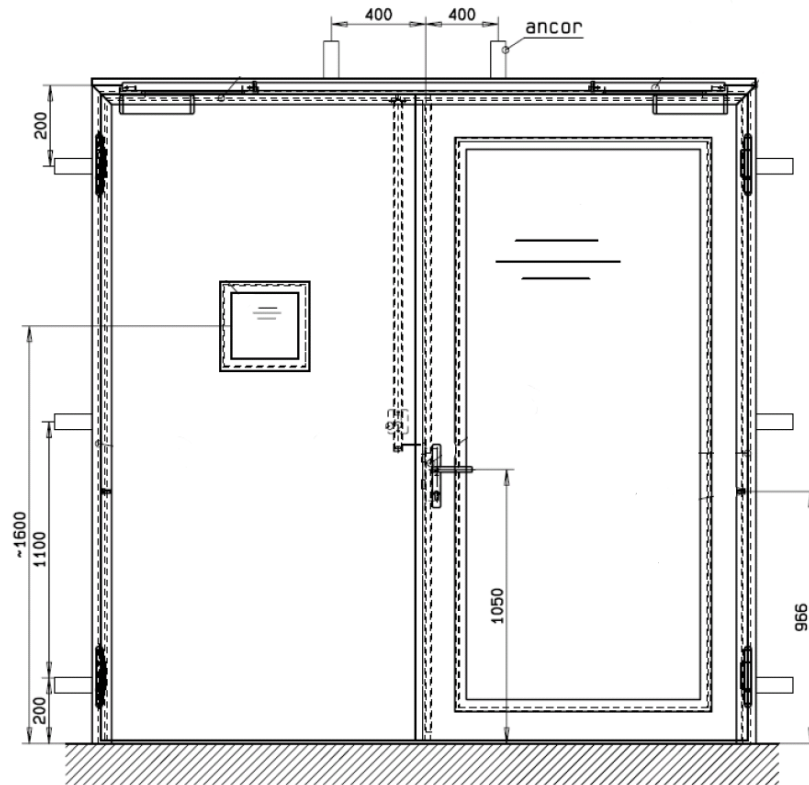
8. Glass: Promaglass 60/25, 300 mm by 300 mm by 25 mm thick.

9. Cable Access: Dorma Typ Kü 480, Doorset B only

10. Drop Seal (Doorset B): Planet HS

11. Door Frame Gasket: GZ-delft (Doorset A); GZ N (Doorset B)

Summary of WF Test Report No. 183359



View from the unexposed face

Door Construction

1. Door Leaf Facings

Folded mild steel, 1 mm thick

2. Door Core

See test report WF Test Report No. 183359

3. Door Frame

Profiled mild steel, 2 mm thick, with gypsum plasterboard infill

4. Hinges

Schwarte KO-Hinge KOF-75, 2 no. per door

5. Closer

Dorma Door Controls TS93 GSR (unexposed faces of both door leaves, inactive)

6. Lock

Active leaf: BKS1828/45, Inactive Leaf: WSS (Wilhelm Schlechtendahl) SRI 77

7. Dog Bolt

1 no. per door, mild steel, M12 x 20 mm

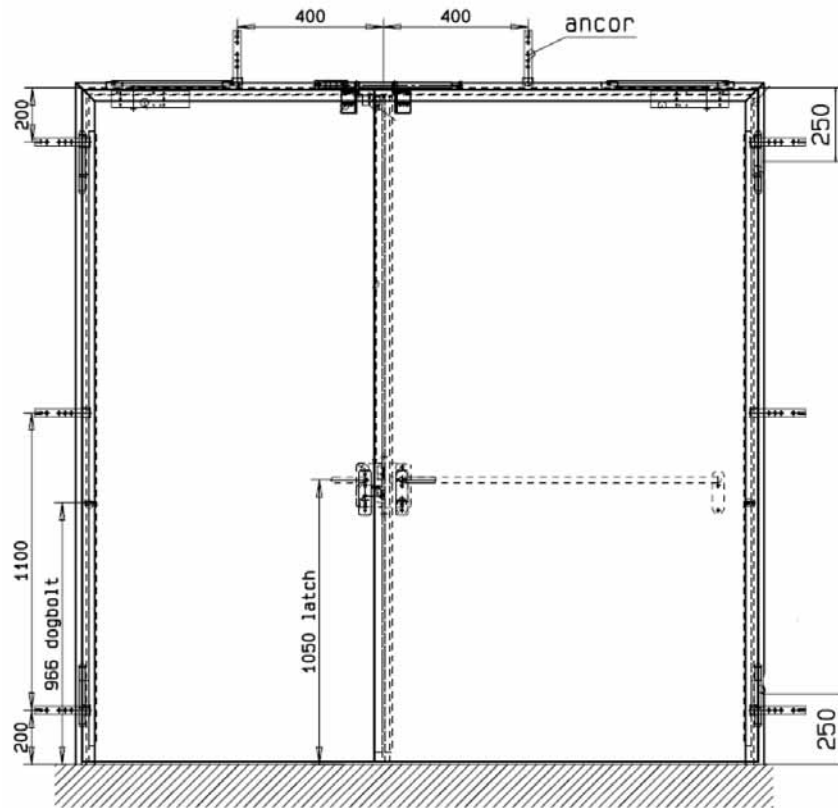
8. Glass

Active door: Promat 60 Typ 1-0, 942 mm x 2155 mm x 25 mm thick

Inactive door: Pilkington Pyrostop Typ 60-1, 300 mm x 300 mm x 23 mm thick

9. Door Frame Gasket: GZ N

Summary of WF Test Report No. 191065



View from the unexposed face

Door Construction

1. Door Leaf Facings

Folded mild steel, 1 mm thick

2. Door Core

See test report WF Test Report No. 191065

3. Door Frame

Profiled mild steel, 1.5 mm thick, with ordinary sand/cement mortar infill

4. Hinges

Schwarte KO-Hinge KOF-75, 2 no. per door

5. Closer

Active door: Geze TS 5000 (inactive during fire test); Inactive door: ECO Multi Genius (inactive during the test)

6. Lock

Active leaf: BKS 2321 0014

Inactive Leaf: BKS 2390 0202 with BKS 9006 0013 connecting rod and BKS 1595 0149 upper latch bolt

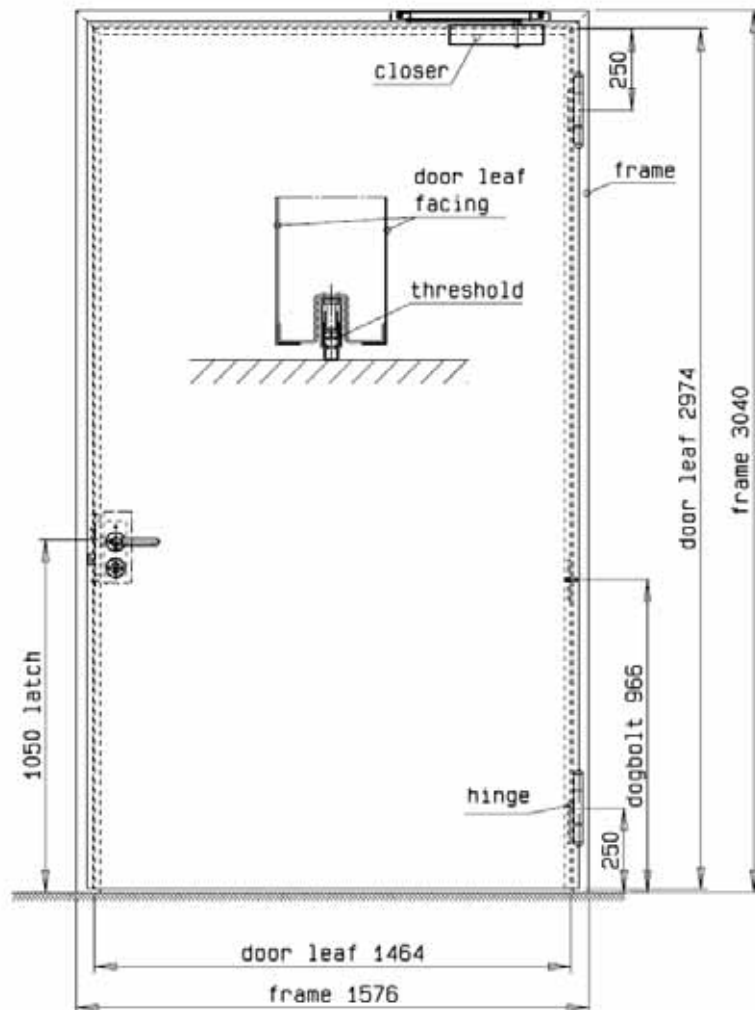
7. Dog Bolt

1 no. per door, mild steel, M12 x 20 mm

8. Drop Down Seals: Athmer Schall ex (active door); Planet HS (passive door)

9. Door Frame Gasket: GZ-delft

Summary of Test No. 120003050-01



Door Construction

1. Door Leaf Facings

Folded mild steel, 1 mm thick

2. Door Core

See test report 120003050-01

3. Door Frame

Profiled mild steel, 2 mm thick

4. Hinges

Simonswerk KO-Band, 2 no.

5. Closer

Eco TS61

6. Seals

Threshold: Planet HS; Frame: Zargendichtung GZN

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with Clause 7 of EN 13501-2:2007.

4.2 Classification

The products, 'System Schroeders EIS-1' and 'System Schroeders EIS-2' may be classified according to the following combinations of performance parameters and classes as appropriate.

R	E	I	W		<i>t</i>	-	M	C	S	IncSlow	sn	ef	r
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Considering the test submitted for classification, the tested assemblies provides the following classifications:

System Schroeders EIS-1:

Fire resistance classification: EI₂60/E120/EW60* - C0 - S_a/S_m

*This doorset is capable of providing a classification of EW120 but EW60 is the maximum classification period permitted in Clause 7 of EN 13501-2:2007.

System Schroeders EIS-2:

Fire resistance classification: EI₂60/E60/EW60 - C0

4.3 Direct Field of Application (EN 1634-1: 2008)

Materials and Constructions, General

Unless otherwise stated in the following text the construction of the door assemblies shall be the same as that tested. The number of leaves and the mode of operation (e.g. sliding, swinging, single action or double action) shall not be changed.

Specific Restrictions on Materials and Construction

The thickness of the door leaves shall not be reduced but may be increased. The door leaf thickness and/or density may be increased provided the total increase in weight is not greater than 25%.

Decorative Finishes

Paint finishes are acceptable and may be added to the door leaf or frame products.

Frames

The number of fixings used to attach the doorset to the supporting constructions may be increased but shall not be decreased and the distance between fixings may be reduced but shall not be increased.

Hardware

Changes in hardware are permitted provided the alternative hardware has been demonstrated in another doorset of similar configuration. The number of any movement restrictors such as locks, latches and hinges may be increased but shall not be decreased.

Permissible Size Variations

Doors of sizes different from those of tested specimens are permitted within certain limitations but variations are dependent on the product type and the length of time that the performance criteria are fulfilled.

Other Changes

For smaller door sizes the relative positioning of movement restrictors (e.g. hinges, latches, etc.) shall remain the same as tested or any change to the distances between them will be limited to the same percentage reduction as the decrease of specimen size.

Asymmetrical Door Assemblies General

BS EN 1363-1 states that for separating elements required to be fire resisting from both sides, two specimens shall be tested (one from each direction) unless the element is fully symmetrical. The doorsets have therefore been separately tested from both directions, in both single and double-leaf configuration.

5. Limitations

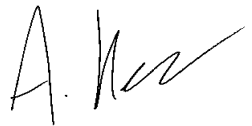
This classification document does not represent type approval or certification of the product.

SIGNED



D Hankinson
Principal Certification Engineer

APPROVED



A Kearns
Technical Manager

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