

**DETERMINATION OF THE SMOKE CONTROL ACCORDING TO
EN 1634-3:2004 OF SMOKE CONTROL DOORS TYPE:
METACON OHD EI(1)-60 / RGS EI(1)-60 AND RGS EI(1)-120**

SoR number	2014-Efectis-R001014[Rev.1])/2014-Efectis-R001015/2014-Efectis-R001016-S
Report no's	2014-Efectis-R001014[Rev.1] 2014-Efectis-R001015 2014-Efectis-R001016
Valid until	February 2020
Sponsor	Metacon BV James Wattstraat 14 2809 PA GOUDA The Netherlands
Number of pages	4

Commissioned by Metacon BV located in Gouda the Netherlands, Efectis Nederland has examined the smoke control of a sectional smoke control door-set type Metacon OHD EI(1)-60, and rolling shutter smoke control doors type RGS EI(1)-60 and RGS EI(1)-120. The investigations have been carried according to the European Standard EN 1634-3:2004.

SPECIFICATIONS OF THE SECTIONAL DOOR SET

For details of the constructions and the results of the examination on fire resistance see test reports 2014-Efectis-R001014[Rev.1], 2014-Efectis-R001015 and 2014-Efectis-R001016 dated February 2015. In the following table some significant details are given.

Specifications of the door-set OHD EI(1)-60	
Overall dimensions	2325 x 2250 x 81 mm (w x h x t)
<i>Door sections</i>	
Height	550 mm
Steel frame	Welded, tubular rectangle
Metal covers	Galvanised steel
Thickness	0.8 mm

Specifications of the door-set RGS EI(1)-60	
Overall dimensions	2400 x 2175 x 61.6 mm (w x h x t)
<i>Shutter lamellas</i>	
Height	159 mm
Core	Rock wool insulation
Thickness	60 mm (2 x 30 mm)
Metal covers	Galvanised steel
Thickness	0.8 mm

Specifications of the door-set RGS EI(1)-120	
Overall dimensions	2400 x 2175 x 60 mm (w x h x t)
<i>Specification of the shutter lamellas</i>	
Height	150 mm
Core	Rock wool insulation
Metal covers	Galvanised steel
Thickness	0.8 mm

CLASSIFICATION***OHD EI(1)-60***

Taking account of the results a linear leakage rate of 1.3 m³/h maximum, the Sa criteria has been satisfied.

Taking account of the results a leakage rate of 13.2 m³/h maximum, the Sm criteria has been satisfied. The door-set will be classified as follows:

Sa and Sm

RGS EI(1)-60

Taking account of the results a linear leakage rate of 2.4 m³/h maximum, the Sa criteria has been satisfied.

Taking account of the results a leakage rate of 14.7 m³/h maximum, the Sm criteria has been satisfied. The door-set will be classified as follows:

Sa and Sm

RGS EI(1)-120

Taking account of the results a linear leakage rate of 1.5 m³/h maximum, the Sa criteria has been satisfied.

Taking account of the results a leakage rate of 9.3 m³/h maximum, the Sm criteria has been satisfied. The door-set will be classified as follows:

Sa and Sm

FIELD OF APPLICATION

The field of direct application of test results is restricted to the allowable changes which a sponsor may make to the tested specimen following a successful smoke leakage test. These variations may be introduced automatically without the need for the sponsor to seek additional evaluation, calculation or approval.

As concerns the dimensions, details, loading, stresses and boundary or end conditions, any significant deviation other than that which is not excluded within the field of direct application of the appropriate test procedure is not covered by this report.

The results of the leakage test continue to apply to assemblies of a different construction subject to the following:

- a) The assembly is of a similar generic construction.
- b) The mode of operation is identical.
- c) The direction does not vary from the tested direction, i.e. door mounted on the side of the wall where the overpressure (and possibly medium temperatures) occur.
- d) The stiffness of the supporting construction and the method of fixing and sealing the frame to the supporting or associated construction shall not be less than that of the tested construction. The supporting construction was made out of a steel frame clad with wooden panels.



Doors tested in a flexible construction may be installed into rigid constructions but not *vice-versa*. Doors tested in a flexible construction to achieve ambient temperature classification S_a may be installed in alternative flexible constructions. The use of alternative flexible constructions for doors with S_m classification will be the subject of extended application considerations.

CONSTRUCTION OF ASSEMBLY

- a) Decorative finishes such as paints may be varied.
- b) The clearance gaps between components may be varied but shall not be greater than those in the tested assembly and where gaps are smaller they shall not impair the ability of the leaf/leaves/curtain to close. Especially in cases where both leaves of hinged or pivoted door assemblies are opened or closed simultaneously.

ROLLING SHUTTERS

The number of slats forming the shutter shall not be increased. The assembly shall be constructed from the same or less number of slats of identical cross section to those of the original specimen. Any method of sealing shall be retained. The method of fixing the guides shall not be changed when fixing to other forms of associated construction.

- a) The area of the rolling shutter shall not be increased but may be reduced for both ambient and medium temperature smoke leakage, providing that no perimeter dimension is increased.
- b) The aspect ratio of the shutter may be varied subject to the length of the perimeter of the moving curtain (sides and base) not being increased.

HARDWARE AND FITTINGS

Elements of hardware or ironmongery and/or their fixing technique may not be changed without extended application evaluation.

The positioning of elements of hardware or ironmongery may be modified for ambient temperature smoke application but shall not be changed for medium temperature applications.

As the sealing system is a critical part of the test, no modification may be made to the system tested.

