

Fire resistance of a METACON RGT EW 60-90-120 roller blind in accordance with Appendix A of NEN 6069:2016

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In 2005 and 2006, on behalf of Metacon B.V., Gouda, the TNO Centre for Fire Safety carried out:

- a) a fire test on a METACON RGT EW 60-90-120 roller blind, in accordance with European standard NEN-EN 1634-1:2001;
- b) an additional assessment on a roller blind of this type.

The reports on these investigations, including the conditions relating to the field of application of the result, are shown in TNO reports 2005-CVB-R0416 (from December 2005) and 2006-CVB-R0129 (27 February 2006). The conclusions reached in these TNO reports comply with the conditions of Appendix A of NEN 6069:2016.

Some characteristics of the roller-blind structure in question are shown in the table below.

Table: Characteristic dimensions of the experimentally investigated and assessed METACON RGT EW 60-90-120 roller-blind structure

Variant Fire resistance	Experimental roller-blind investigation (TNO report 2005-CVB-R0416)		Assessed enlarged roller blind (TNO report 2005-CVB-R0129)	
	A 127 minutes	B1 60 minutes	B2 90 minutes	B3 120 minutes
Width of clear opening	3300 mm	≤ 12.0 m	≤ 9.0 m	≤ 6.0 m
Height of clear opening	2550 mm	≤ 8.0 m	≤ 6.0 m	≤ 4.0 m
Surface area of clear opening	8.4 m ²	≤ 48.0 m ²	≤ 36.0 m ²	≤ 24.0 m ²
Horizontal overlap of guide	150 mm	240 mm	210 mm	180 mm
Horizontal overlap of roller blind and wall	100 mm	155 mm	135 mm	115 mm
Vertical overlap of structure: distance from centre of roller mechanism to bottom of lintel	150 mm	≥ 150 mm*)	≥ 150 mm*)	≥ 150 mm*)
For the detail of the connections and the meaning of these dimensions, see the figures in the TNO reports in question. *) The distance must be adjusted to the enlarged diameter of the roller; see condition g).				

Subject to the conditions set forth below, it was established that the following applies to the METACON RGT EW 60-90-120 roller blind referred to above:

'Fire resistance in the sense of Appendix A of NEN 6069:2011, depending on the clear openings in the wall and the connections at the edge of the blind as shown in table 1:

- 127 minutes for the experimental test specimen (variant A);
- 60 minutes for the enlarged structure (variant B1);
- 90 minutes for the enlarged structure (variant B2);
- 120 minutes for the enlarged structure (variant B3).

Conditions and field of application

The conclusions apply solely to roller-blind structures that are the same as the investigated/assessed roller blind in detail, including materials used etc. as that above in the reports referred to, taking into account the conditions specified in these reports, these including the following:

- a) the dimensions of the clear opening, roller blind and connection details must comply with the specifications shown in summary form in the table;
- b) the roller mechanism may be attached to both the fire side of the supporting wall and the side not directly exposed to heat;
- c) the structure is mounted to a support structure using continuous threaded ends that are:
 - made from stone-like material with a minimum thickness and volumetric mass of 150 mm and 640 kg/m³ respectively;
 - made from stone-like material with a minimum thickness and volumetric mass of 110 mm and 1250 kg/m³ respectively; or
 - a steel structure with demonstrable fire resistance of at least 60 minutes (with adequate mechanical fixing to the steel structure).
- d) the guide and housing may also be made of stainless steel.

In terms of the enlarged structures (B-range variants) the following additional conditions apply:

- e) as a form of extra support for the seal structure, a single extra bracket must be fitted per 3 metres of widening in relation to the tested width dimension. All brackets must be evenly distributed throughout the width of the structure;
- f) the values shown in table 1 for the overlapping sections of the structure must be adhered to;
- g) the diameter of the roller must be adjusted to the increased span on the basis of the rules that apply to the strength calculations at normal temperature.

Validity

The period of validity of this SvO is:

- October 2020, or
- When CE-marking for this type of constructions is mandatory; or
- When the EN 15269-11 is officially published.

The date which comes first with decisive.