



Rectangular intumescent grilles



RCF DESCRIPTION

RCF intumescent grilles are designed for installation in walls or doors to allow air circulation while preventing the spread of fire between rooms. They offer effective protection against flames, smoke, and gases produced during a fire.

In the event of a fire or a drastic rise in temperature, the slats expand, sealing the grille openings and forming a barrier against flames and gases.

They are made of thermoplastic profiles containing a high-end intumescent PALUSOL joint, which begins to expand when it reaches 100°C.

- Activation temperature: 100 °C.
- Rapid sealing (en general menos de 5 minutos, aunque depende de la exposición al calor).
- Active material: PALUSOL®
- Easy installation.
- Not suitable for outdoor use: Avoid contact with water and constant exposure to temperatures above 40 °C.

Applications: These grilles are particularly suitable for allowing ventilation between: Fire-rated (FR) doors, whether metallic or wooden, Fire-rated (FR) walls or partitions, Fire-rated (FR) screens, Fire-rated (FR) ducts.

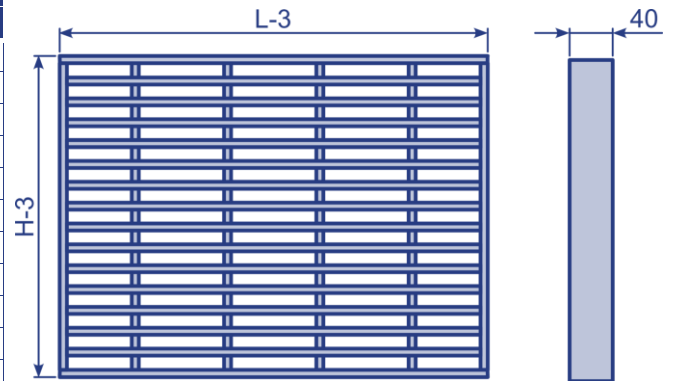
STORAGE

This product must be stored in a dry, well-ventilated place.

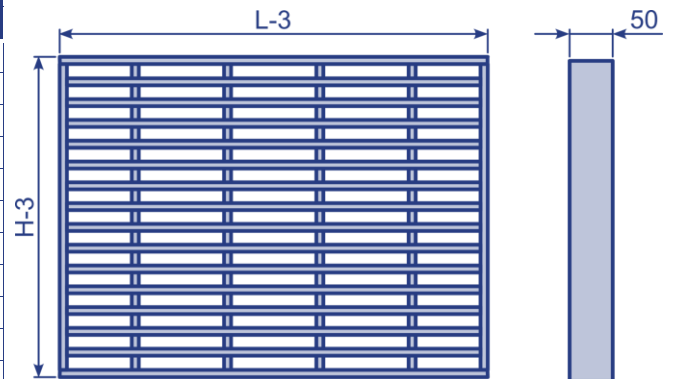


Product range

Model								RCF4				
Thickness								40 mm				
Free area								60%				
Frame and slat color								Grey				
DIMENSIONS												
H	L	100	150	200	250	300	350	400	450	500	550	600
100		*	*	*	*	*	*	*	*	*	*	*
150		*	*	*	*	*	*	*	*	*	*	*
200		*	*	*	*	*	*	*	*	*	*	*
250		*	*	*	*	*	*	*	*	*	*	*
300		*	*	*	*	*	*	*	*	*	*	*
350		*	*	*	*	*	*	*	*	*	*	*
400		*	*	*	*	*	*	*	*	*	*	*
450		*	*	*	*	*	*	*	*	*	*	*
500		*	*	*	*	*	*	*	*	*	*	*
550		*	*	*	*	*	*	*	*	*	*	*
600		*	*	*	*	*	*	*	*	*	*	*



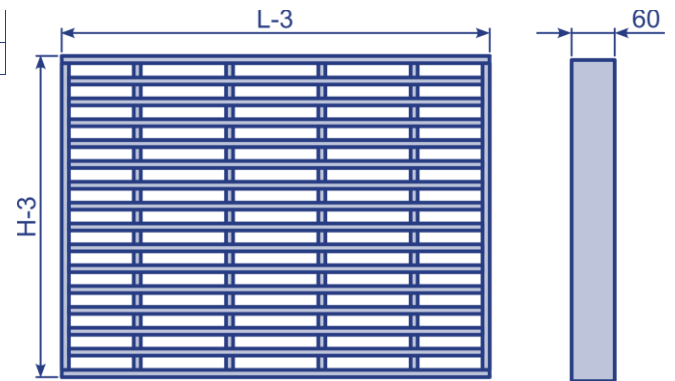
Model								RCF5				
Thickness								50 mm				
Free area								60%				
Frame and slat color								Grey				
DIMENSIONS												
H	L	100	150	200	250	300	350	400	450	500	550	600
100		*	*	*	*	*	*	*	*	*	*	*
150		*	*	*	*	*	*	*	*	*	*	*
200		*	*	*	*	*	*	*	*	*	*	*
250		*	*	*	*	*	*	*	*	*	*	*
300		*	*	*	*	*	*	*	*	*	*	*
350		*	*	*	*	*	*	*	*	*	*	*
400		*	*	*	*	*	*	*	*	*	*	*
450		*	*	*	*	*	*	*	*	*	*	*
500		*	*	*	*	*	*	*	*	*	*	*
550		*	*	*	*	*	*	*	*	*	*	*
600		*	*	*	*	*	*	*	*	*	*	*



Model								RCF6				
Thickness								60 mm				
Free area								60%				
Frame and slat color								Grey				
DIMENSIONS												
H	L	100	150	200	250	300	350	400	450	500	550	600
100		*	*	*	*	*	*	*	*	*	*	*
150		*	*	*	*	*	*	*	*	*	*	*
200		*	*	*	*	*	*	*	*	*	*	*
250		*	*	*	*	*	*	*	*	*	*	*
300		*	*	*	*	*	*	*	*	*	*	*
350		*	*	*	*	*	*	*	*	*	*	*
400		*	*	*	*	*	*	*	*	*	*	*
450		*	*	*	*	*	*	*	*	*	*	*
500		*	*	*	*	*	*	*	*	*	*	*



550	*	*	*	*	*	*	*	*	*	*	*	*
600	*	*	*	*	*	*	*	*	*	*	*	*



Operation

**RCF grille before the fire resistance test
(unexposed face)**



**RCF grille after 5 minutes of fire resistance test
(unexposed face)**



**RCF grille after 30 minutes of fire resistance test
(unexposed face)**



**RCF grille after 60 minutes of fire resistance test
(unexposed face)**



**RCF grille after 30 minutes of fire resistance
test (unexposed face)**



INSTALATION

Preamble

The installer must verify the suitability of the material for its intended application in accordance with current regulations.

The RCF intumescent grille used must match the fire resistance rating required by law. Its size and specifications must correspond to its certification (refer to the official test report and the material's technical data sheet).

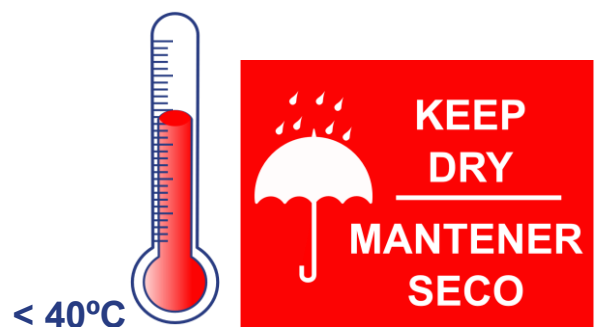


Recommendations

RCF intumescent grilles must not be installed in locations susceptible to continuous temperatures exceeding 40°C.

RCF intumescent grilles must not be stored or installed in excessively humid environments, nor should they come into direct contact with water.

RCF intumescent grilles do not perform mechanical functions.

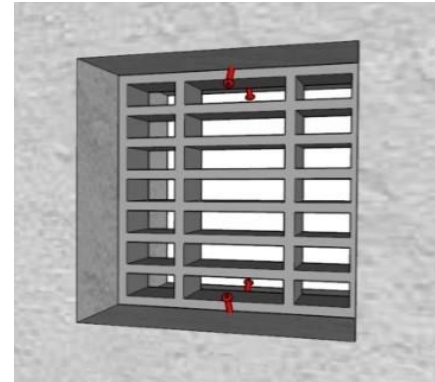




Installation

RCF grilles are approximately 3 mm smaller than their nominal dimensions (W & H) to allow for easy insertion into the opening.

They must be centered relative to the thickness of the concrete wall. The intumescent grille must be mechanically secured by installing four 4 x 40 mm screws into the structure on both sides of the grille (see attached sketch).



Important

The grille must be installed in the correct direction, with the slats positioned horizontally (as shown in the attached sketch). Any gaps (less than 5 mm) between the **RCF** grille and the wall must be sealed using MACRI intumescent mastic to ensure a complete seal against cold draft or during a fire.

RCF4-type grilles (40 mm thickness) are only EI120 (2-hour fire resistance) certified if they are installed between two fixed-blade (45° deflection) aluminum return grilles



Once the grille is positioned and secured with 4 x 40 mm screws, a bead of MACRI mastic must be applied to each side of the grille. The bead should have a cross-section of approximately 10 x 5 mm. The following table has been prepared taking these considerations into account:

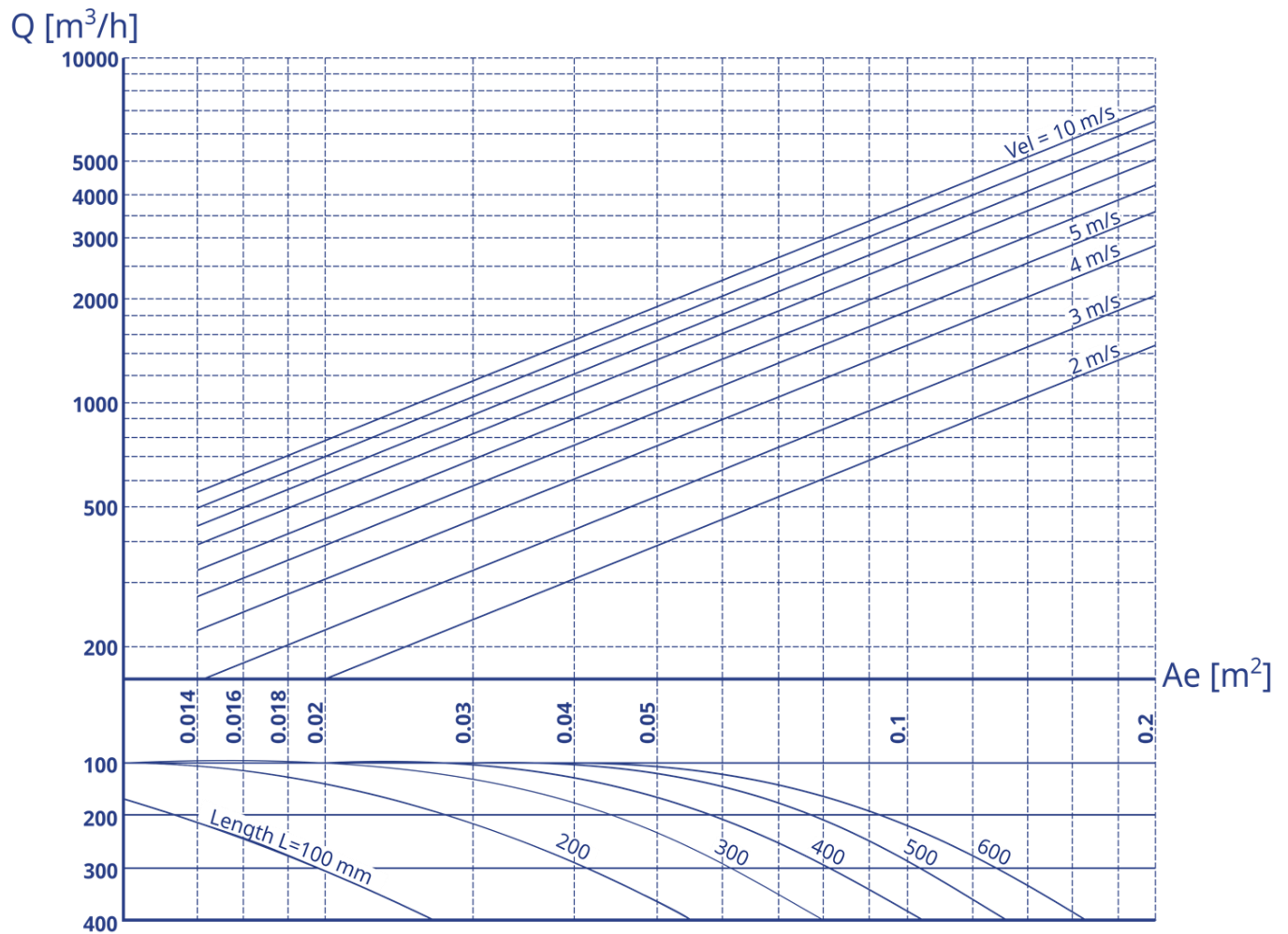
L X H	cm ³ of mastic required per grille										
	100	150	200	250	300	350	400	450	500	550	600
100	40	50	60	70	80	90	100	110	120	130	140
150	50	60	70	80	90	100	110	120	130	140	150
200	60	70	80	90	100	110	120	130	140	150	160
250	70	80	90	100	110	120	130	140	150	160	170
300	80	90	100	110	120	130	140	150	160	170	180
350	90	100	110	120	130	140	150	160	170	180	190
400	100	110	120	130	140	150	160	170	180	190	200
450	110	120	130	140	150	160	170	180	190	200	210
500	120	130	140	150	160	170	180	190	200	210	220
550	130	140	150	160	170	180	190	200	210	220	230
600	140	150	160	170	180	190	200	210	220	230	240

Each tube of MACRI mastic contains 310 cm³



SELECTION GRAPHS

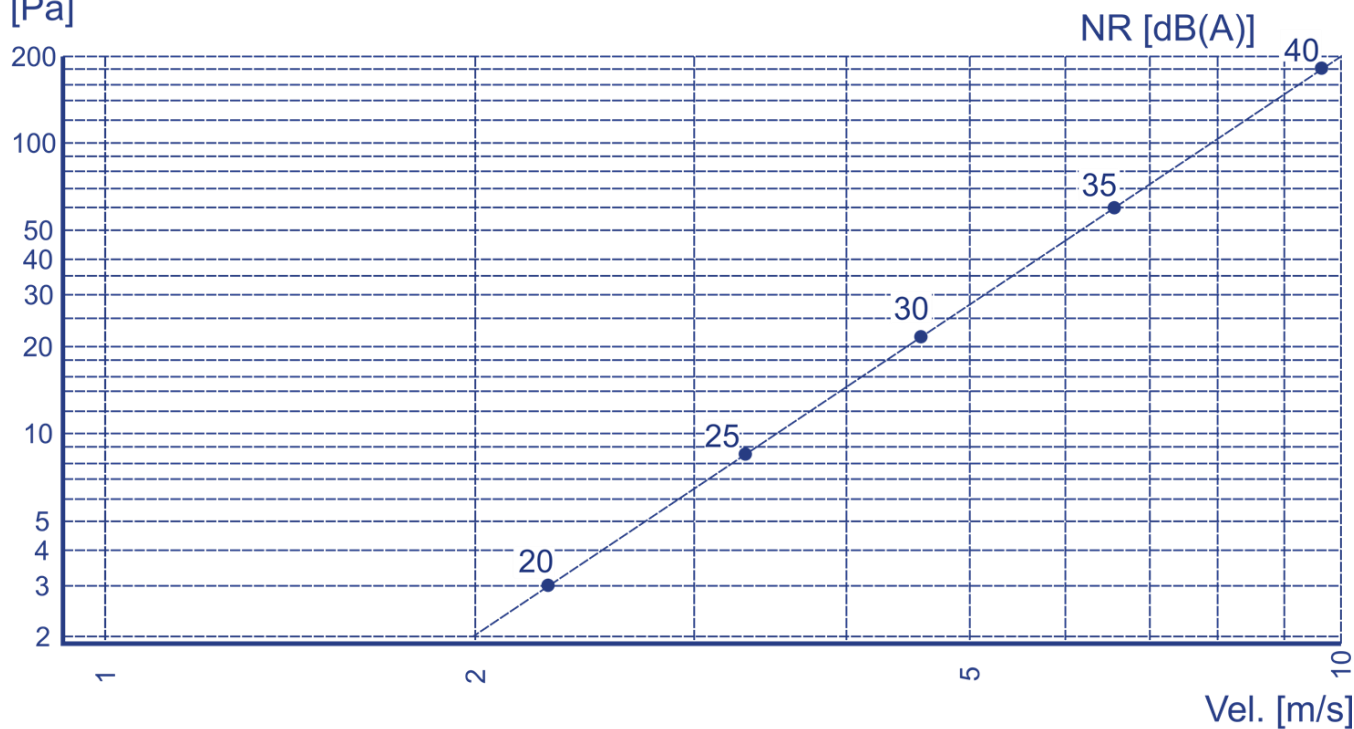
RCF effective area and velocity



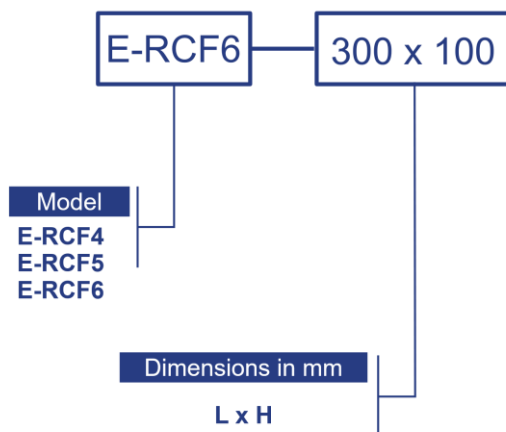


RCF pressure drop and noise level

ΔP [Pa]



ORDERING REFERENCE



Example: E-RCF6 – 300x100: RCF intumescent grille, 60 mm wide.