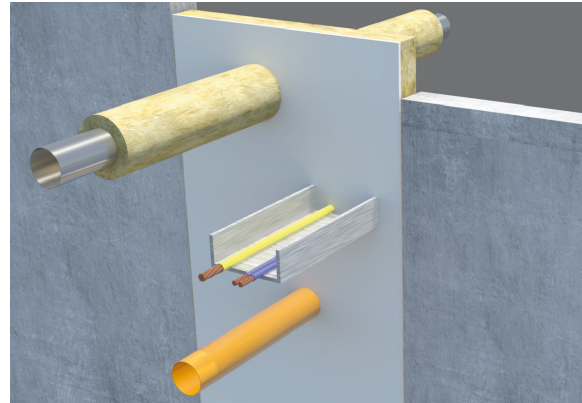


## Technical data sheet

### K-FLEX® K-FIRE BOARD

#### GENERAL PRODUCT DESCRIPTION

K-FLEX® K-FIRE BOARD has been designed to maintain the fire resistance of separating walls and floors where they are breached by single or multiple building services. The board consists of a stone wool core, sealed with K-FLEX® K-FIRE COATING on 1 or both faces. The coating provides an important barrier to the passage of fire, smoke and hot gases through the thickness of the board, reducing the rate at which the stone wool core heats up and thus provides a better heat sink for the dissipation of conducted heat through penetrations with higher thermal conductivity. Selection of the board coated on 1 or both faces is determined by installation considerations and fire resistance requirements. When installed on site, K-FLEX® K-FIRE BOARD should be used with K-FLEX® K-FIRE ACRYLIC for sealing around service penetrations and the adjacent separating construction.



#### GENERAL GUIDE

Minimum separations and limitations: Services can be sealed as specified in the detailed drawings. An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system K-FLEX® K-FIRE BOARD seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.

Supporting constructions: Flexible walls must have a minimum thickness of 75 mm and comprise steel studs or timber studs\*) lined on both faces with minimum 1 layer of 12.5 mm thick boards. Rigid walls must have a minimum thickness of 75 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m<sup>3</sup>. Rigid floors must have a minimum thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650 kg/m<sup>3</sup>. The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

\*) Timber studs: no part of the penetration seal may be closer than 100 mm to a stud, and minimum 100 mm of insulation of class A1 or A2 according to EN 13501-1 must be provided within the cavity between the penetration seal and the stud.

#### INSTALLATION

1. Before installing K-FLEX® K-FIRE BOARD ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. K-FLEX® K-FIRE COATING and K-FLEX® K-FIRE ACRYLIC are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. Select the type and number of boards to meet the required fire classification using the drawings on pages 2-17.
4. When fitting boards into gypsum walls the coated side of the board should be flush with the surface of the gypsum on both sides. In seals wider than 2400mm, uninterrupted separating studs

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### K-FLEX® K-FIRE BOARD

will be required at 2400mm centers or less.

5. When fitting double layer 60mm thick boards in masonry or concrete constructions, the boards should be flush with the surface of the construction on both sides to maximize the fire resistance. If this is not possible, there should be an air gap of at least 30mm between the boards.
6. When fitting single layer boards in masonry or concrete constructions, the board can be positioned to either side of the construction or anywhere in between.
7. When fire sealing shaft walls consisting of gypsum only on one side, subject to authority approval, install K-FLEX® K-FIRE BOARD on the exposed side following the instructions for gypsum wall installation shown on pages 2 to 7. The board should be facing the (fire) exposed side.
8. When installing K-FLEX® K-FIRE BOARD in hollow floor slabs or boards, fire seals specified as single layer boards should be installed from the soffit side of the floor assuming there is sufficient thickness of concrete below the void to follow the installation guide. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
9. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with K-FLEX® K-FIRE COATING or K-FLEX® K-FIRE ACRYLIC prior to fitting which will act as an adhesive and ensure a smoke tight seal.
10. All joints, gaps or imperfections in the installed seal must be filled with K-FLEX® K-FIRE ACRYLIC on both sides.
11. K-FLEX® K-FIRE BOARD can be over-painted with most emulsion or alkyd (gloss) paints.

### TEST STANDARDS

This Installation Instruction is based on the product's European Technical Assessment, issued in accordance with regulation (EU) No 305/2011, on the basis of ETAG 026-2 and 3, edition 2011, used as European Assessment Document (EAD).