**GENERAL PRODUCT DESCRIPTION**

AIS FR Board – FP 409 is designed to prevent the spread of fire and smoke through openings in fire rated walls and floors where openings are formed to allow the installation of multiple building services. FP 409 will also maintain the acoustic design performance in fire rated walls and floors.

FP 409 consists of a high density stone wool core, over-coated with AIS FR Coating – FP 604. The top coating provides additional protection by significantly reducing the permeability of the stone wool core and prevents the passage of hot gases, thus reducing the temperature rise on the unexposed side and reducing heat conduction through the building services.

FP 409 is available with top coating on one or two sides, selected on the basis of installation considerations and fire resistance. On site, FP 409 must be used together with AIS FR Acrylic for sealing around building services and the surrounding construction.

**PROPERTIES**

* Classified for all types of constructions with or without building service penetrations
* Simple and very quick to install
* Resists UV, humidity and frost (once cured)
* Easy to retrofit additional building services after installation
* Permanently flexible - will accommodate movements during fire and movements in the construction it has been fitted within
* Suitable for most surfaces, including concrete, bricks, masonry, steel, wood, gypsum, glass, plastic and most non-porous surfaces. Should not be used in direct contact with bituminous materials
* May be used in unlimited lengths in walls with heights up to 1200 mm and in floors with widths up to 800 mm.
* May be installed in drywalls with or without framing around the opening
* Halogen free with added fungicides
* AIS FR Board – FP 409 can be supplied with a smooth surface
* Precautions are required to be taken to prevent a person stepping onto a blank horizontal penetration seal

**SOUND INSULATION**

|  |  |
| --- | --- |
| Description | Sound Reduction |
| Single 50 or 60mm FR Board 2-S as linear seal ≤ 120mm wide | Rw 55 dB |
| Single 50 or 60mm FR Board 2-S as large seal | Rw 29 dB |
| Double 50 or 60mm FR Board 1-S or 2-S as large seal | Rw 52 dB |
| 50 or 60mm FR Board 1-S or 2-S with 50mm cavity, large seal | Rw 53 dB |

**EMISSION DATA (INDOOR AIR QUALITY)**

|  |  |
| --- | --- |
| Compound | EMISSION RATE AFTER 4 WEEKS |
| TVOC | 0.20 mg/m2h |
| Formaldehyde | n.d. |
| Ammonia | n.d. |
| Carcinogenic | n.d. |

|  |  |
| --- | --- |
| Regulation or Protocol | Conclusion |
| French VOC Regulation | A+ |
| French CMR components | Pass |
| Italian CAM | Pass |
| ABG / AgBB to the guidelines of DIBt | Pass |
| Belgian Regulation | Pass |
| Indoor Air Comfort® | Pass |
| EU Decopaint Directive | Compliant |
| M1 | Pass |
| BREEAM-NOR | Compliant |
| LEED v4 | Compliant |

**RESISTANCE TO FIRE**

|  |  |  |
| --- | --- | --- |
| Construction | Description | Classification |
| Flexible walls comprise gypsum, masonry, aerated concrete or concrete | Unlimited width by 1200mm high seal with double 50mm FR Board 1-S | EI 120 (E 120) |
| Timber walls comprise solid wood or cross-laminated timber | Up to 1200mm wide by 600mm high aperture with double 50mm FR Board 1-S as pattress | EI 120 (E 120) |
| Rigid walls comprise masonry, aerated concrete or concrete, within walls or between the head of walls and the soffit of floor slabs | Unlimited width by 1200mm high seal with single 60mm FR Board 2-S | EI 90 (E 240) |
| Unlimited width by 1200mm high seal with double 60mm FR Board 2-S | EI 180 (E 240) |
| Up to 1200 by 1200mm seal with double 60mm FR Board 2-S | EI 240 (E 240) |
| Rigid floors comprise aerated concrete or concrete within floors or between floors and walls | Up to 1200 by 600mm seal with single 60mm FR Board 2-S | EI 120 (E 240) |
| Up to 2400 by 1200mm seal with single 60mm FR Board 2-S | EI 90 (E 120) |
| Up to 1200 by 600mm seal with double 60mm FR Board 2-S | EI 180 (E 240) |
| Up to 2400 by 1200mm seal with double 60mm FR Board 2-S | EI 120 (E 180) |
| Timber floors comprise solid wood or cross-laminated timber | Up to 1200 by 600mm aperture with double 50mm FR Board 1-S as pattress | EI 90 (E 90) |

NB. The classifications are limited to the service penetrations. Please read the Installation Instructions before usage.

**TECHNICAL SPECIFICATION**

|  |  |
| --- | --- |
| Density | Board: 160 kg/m3 (150 – 170 kg/m3)  Coating: 1.3 – 1.4 kg/ltr |
| Durability | Y1 - Intended for use at temperatures below 0°C with exposure to UV and humidity but no exposure to rain. Includes lower classes Y2, Z1 and Z2. |
| Non-sticky | Max. 75 minutes (sealant) |
| Film forming | Max. 25 minutes (sealant) |
| Totally hardened | 3 to 5 days depending on thickness and temperature |
| Reaction to fire | Class D-s1, d0 |
| Flexibility | Medium, 12.5% |
| Thermal conduct. | 0.038 W/mK |
| Storage | May be stored for a long period of time. To be stored in temperatures between 5˚C and 30˚C |
| Limitations | If the boards are to be used in permanently humid areas AIS FR Coating-FP 604 should be applied over the sealant |
| Temperature range | -30°C to +80°C (when hardened) |
| Installation temp. | +5°C to +50°C |
| Working life | Minimum 25 years if conditions are met |
| Colour | White surface, green core  FR Acrylic: NCS 1202 – Y26R, RAL 9002 |