



fire barrier systems

fire blanket
consumables
fire insulation rope
multicoat fire stopper gap filler

www.arfen.com

safe handling
movement
seismic
performance
mattress
tested
structural joint
certified
compressibility
professional
versatile





Since the day it was founded, ARFEN has been producing solutions in high quality standards to meet construction and industrial sectors demand, and has achieved significant success with its business partners not only in domestic markets but also in international markets.

To be able to reach this success, our motto strictly have been "Continues in quality and customer focused approach".

Arfen continues its activities in 18.000 m2 closed area in İstanbul Hadımköy Industrial area, Çorlu Organized Industrial area and Gebze Organized Industrial area. It has become one of the most significant and greatest manufacturer in plastic, aluminum and rubber industry with a management approach that has adopted the principle of specialization in manufacturing.

While Arfen applies modern production systems, it also provides sensitivity to work safety, human health and environment.

Arfen fulfills the need of construction industry with its dilatation profiles, Arfen Bridge expansion profiles and bearings, Arfen decoration profiles, Viny wall and corner protection systems, Aluminum matting systems and Hydroflex & chamfer bands.

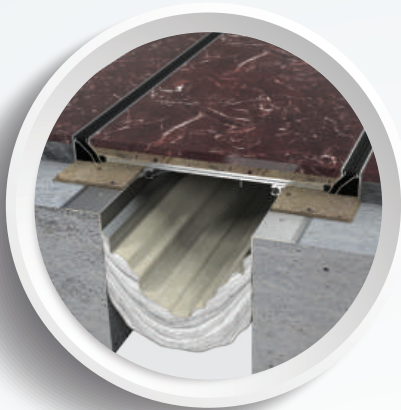
Moreover, having available high machinery and equipment capacity, Arfen meets the specific product requirements of different sectors.

By working in numerous projects without any problems provided Arfen to have global market network coverage in more than 50 countries in the construction industry.

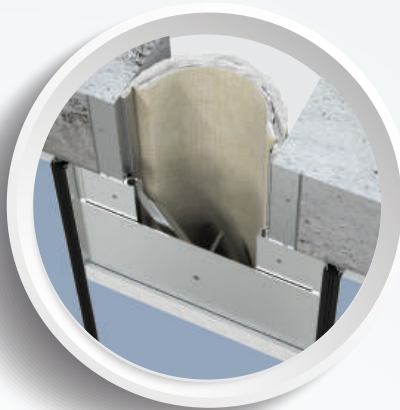
Arfen's perfection and excellence in production quality is provided by its hard working and honest employees from lowest levels to top managers.

After 20 years of working with an understanding of business and ethics, we would like to thank our employees, our customers and suppliers for their contributions.

Yours Faithfully.



Arfen Fire Blanket (Horizontal)



Arfen Fire Blanket (Vertical)



Arfen Fire Insulation Rope

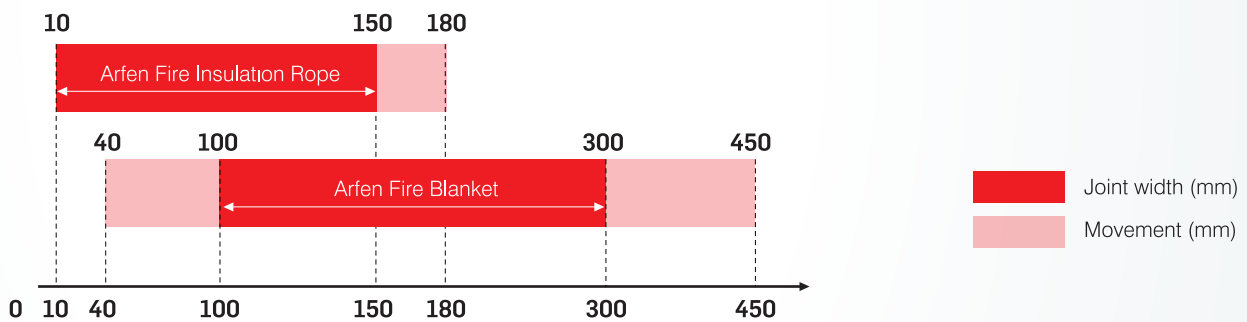


Arfen Multicoat Fire Stopper Gap Filler

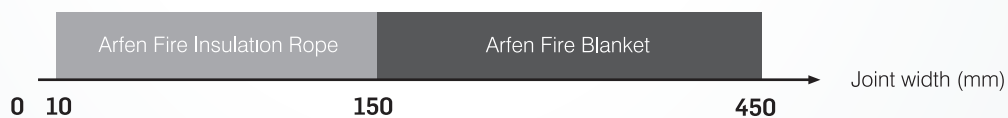


Arfen Consumables

RESULTS



RECOMMENDATIONS

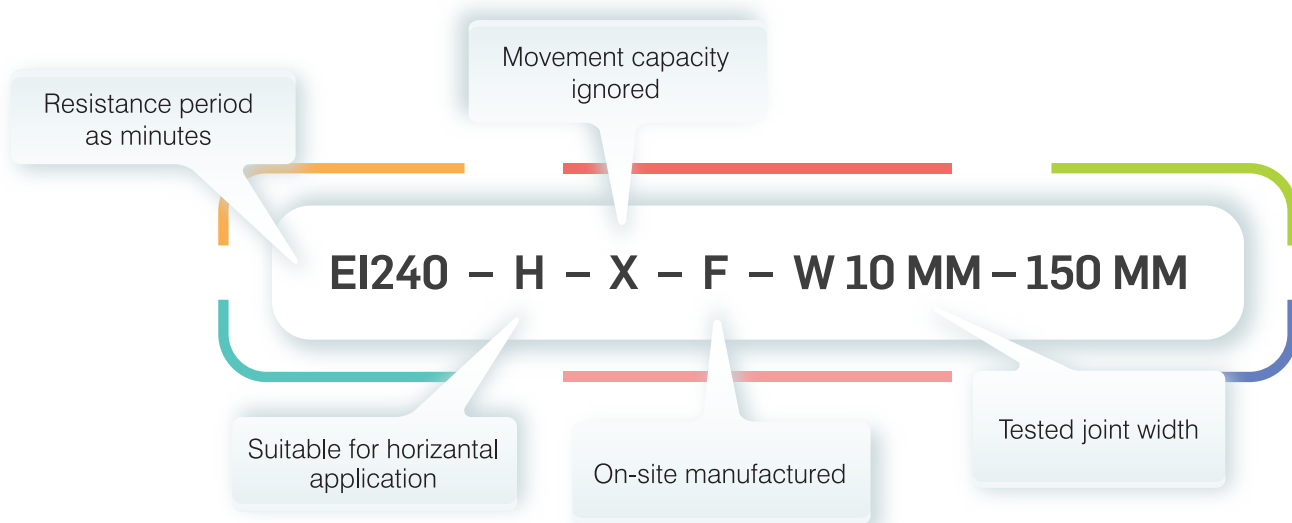


HOW TO READ A

CLASSIFICATION REPORT ?

Things to know for correct reading of test reports
in accordance with fire resistance standards

- E:** Integrity
- I:** Insulation
- EI:** Resistance period as minutes
- H:** Suitable for horizontal application
- V:** Suitable for vertical application
- M:** Movement Capacity
- X:** Movement capacity ignored
- B:** Factory and on-site manufactured
- F:** On-site manufactured
- W:** Tested joint width



ARFEN ROCK WOOL FIRE ROPE

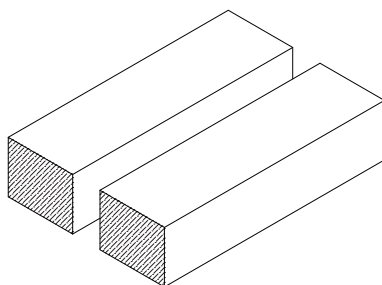
Arfen fire insulation rope can be easily applied because of type used as Glass yarn weaving on rock wool. Should be placed in the expansion joint gap by compression of at least 33%

Arfen fire insulation rope diameter to be selected according to the application area,

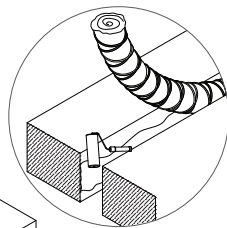
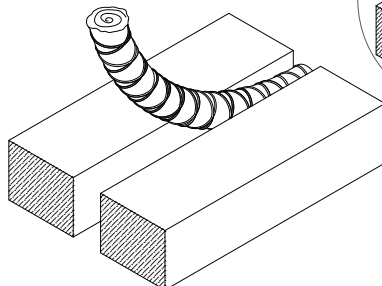
- Horizontal - Vertical Fire Resistance Time: EI240 (SIST EN 13501-2)
- Fire Resistance Classification: A1
- Product Sizes: 20 - 180 mm
- Product Density: 240 +/-20 Kg / m³
- Horizontal And Vertical Use Suitability: Yes
- ETA 17/0061

EI240 - H - X - F - W 10 MM - 150 MM

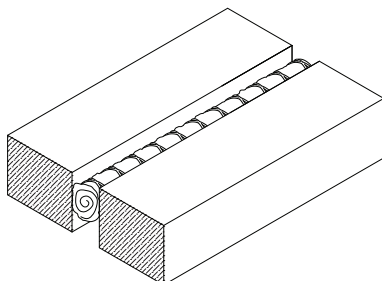
Expansion Joint Gap Dimension (mm)	<10	11-15	16-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-110	111-120	121-130	131-140	141-150
Material Diameter to be applied (mm)	20	25	30	40	50	60	70	80	90	100	120	130	140	150	160	170



1st step
Concrete surface area and expansion joint gap should be cleaned and prepared to be suitable for application

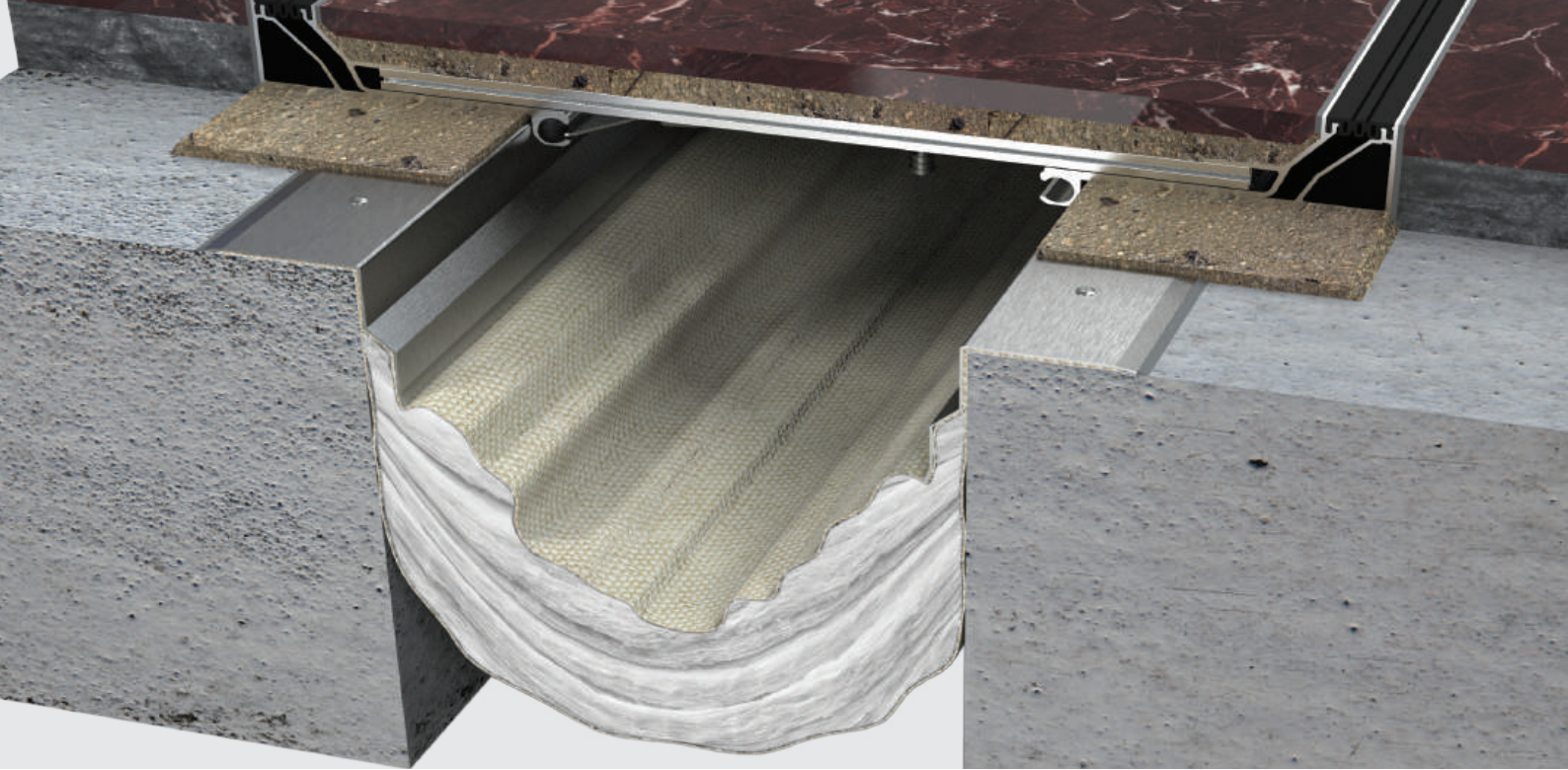


2nd step
ARFEN rope should be selected according to suitable size for the expansion joint gap and placed into the gap with squeeze



3rd step
If required, the rope can be fixed with suitable sealant or adhesive on the edge of concrete surface





ARFEN FIRE BLANKET (HORIZONTAL)

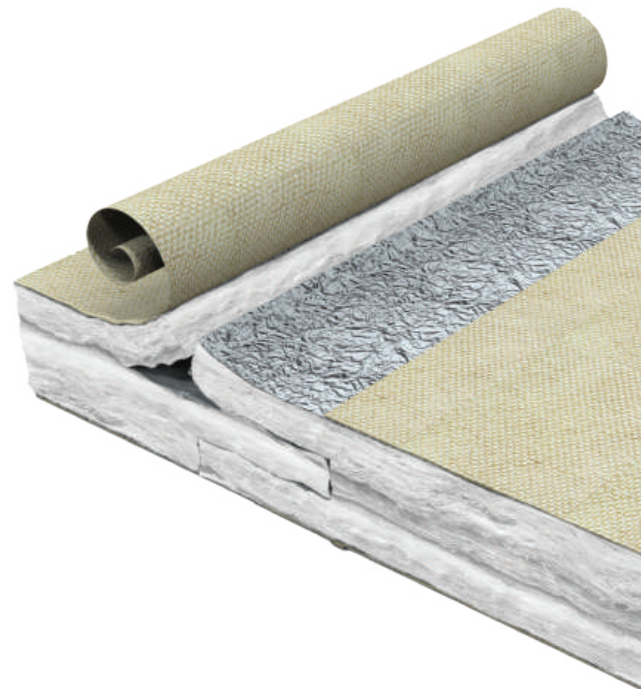
Firestop 120 is a high performance, low weight, 7 layer fiberglass fire blanket that is designed to prevent fire and smoke passage in Expansion Joint gaps and also prevents heat transfer and flame transition to cold side. ARFEN fire barriers can be applied easier and faster than traditional solutions. ARFEN fire barriers have designed and tested to resist fire longest when mounted properly.

Can be used in vertical and horizontal gaps from 100 mm to 300 mm. Suitable for floor applications. Application areas: Carparks, hospitals, shopping centres, schools, library and etc.

- Horizontal Fire Resistance Time : EI180 (EN 1366-4:2006+A1:2010)
- Fire Resistance Classification: A1
- Product Sizes: 100- 300 MM
- Vertical Use Suitability: NO
- Horizontal Use Suitability: YES

E 180 – EI 60 – H – M50 – B- W100-450 MM

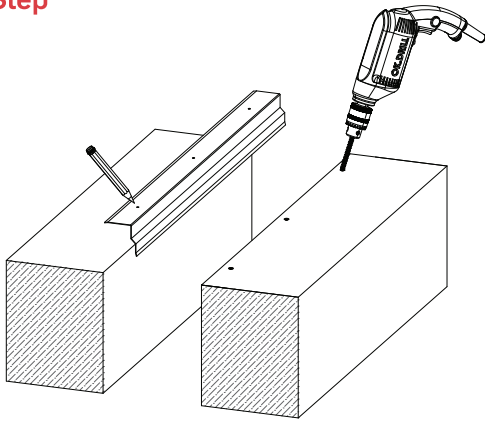
Reference	Initial Gap (mm)	Maximum Gap (mm)	Min. Gap (mm)	Classification
FS100	100	150	40	E180 - EI60 - H - M50 - W100
				E120 - EI20 - V - M50 - W100
FS150	150	225	40	E180 - EI60 - H - M50 - W100
				E120 - EI20 - V - M50 - W100
FS200	200	300	40	E180 - EI60 - H - M50 - W100
				E120 - EI20 - V - M50 - W100
FS250	250	375	40	E180 - EI60 - H - M50 - W100
				E120 - EI20 - V - M50 - W100
FS300	300	450	40	E180 - EI60 - H - M50 - W100
				E120 - EI20 - V - M50 - W100



Fire Blanket Layers

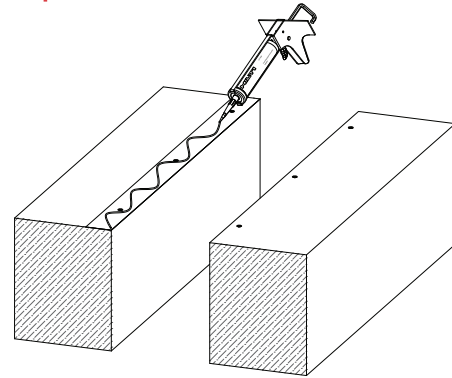
60 MINUTES ISOLATION **180** MINUTES OF INTEGRITY

1st Step



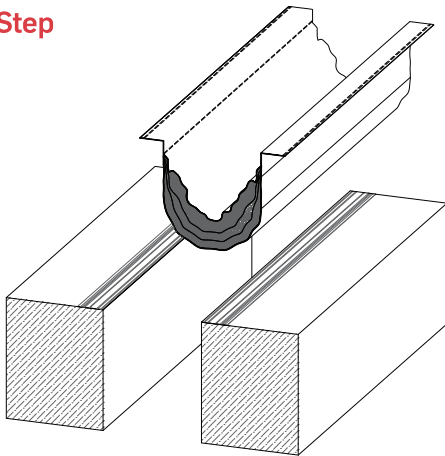
1st Step: The concrete surface and expansion joint gap should be cleaned. The galvanized moutage profiles should be placed on the concrete surface and concrete should be marked through holes on the galvanized profiles, after that fixation holes should be opened with 6,5 mm drill. The holes started from beginning point 150 mm and continue with the interval of 300 mm

2nd Step



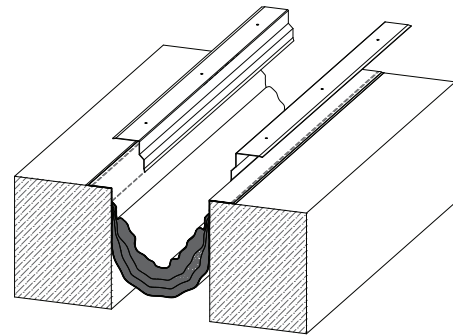
2nd Step: Sealant should be applied on the concrete surface and the layer should be 70 mm

3rd Step



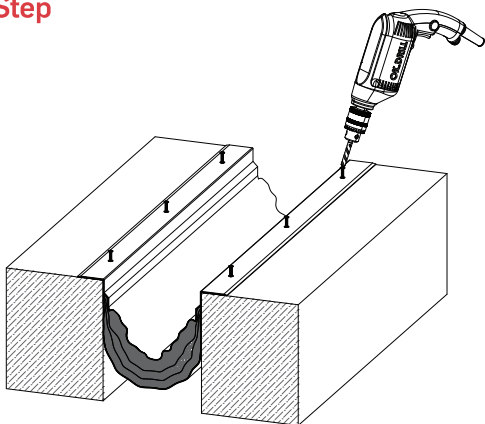
3rd Step: Fire barrier should be placed on the sealant layer. Wait for a while to get efficient bonding with sealant and barrier. After this process, fire barrier could be fixed with nails on the surface optionally

4th Step



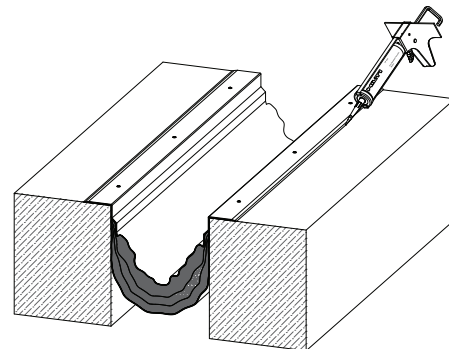
4th Step: Galvanized moutage profiles should be placed on the fire barrier which is already bonded with concrete surface.

5th Step



5th Step: Application should be done by E 8,0x80 Buldex Screw through the opened holes on galvanized moutage profiles.

6th Step

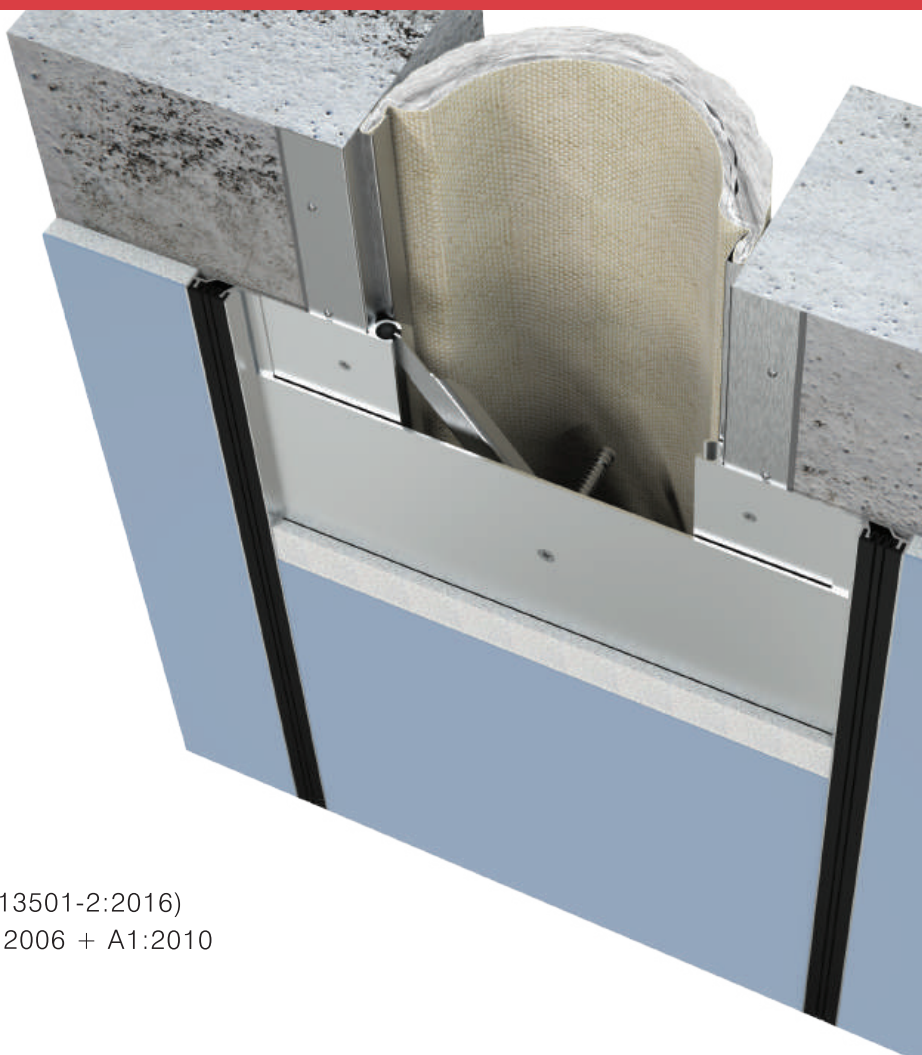


6th Step: The application will be completed with sealant to prevent any leakage between galvanized moutage profiles and concrete surface

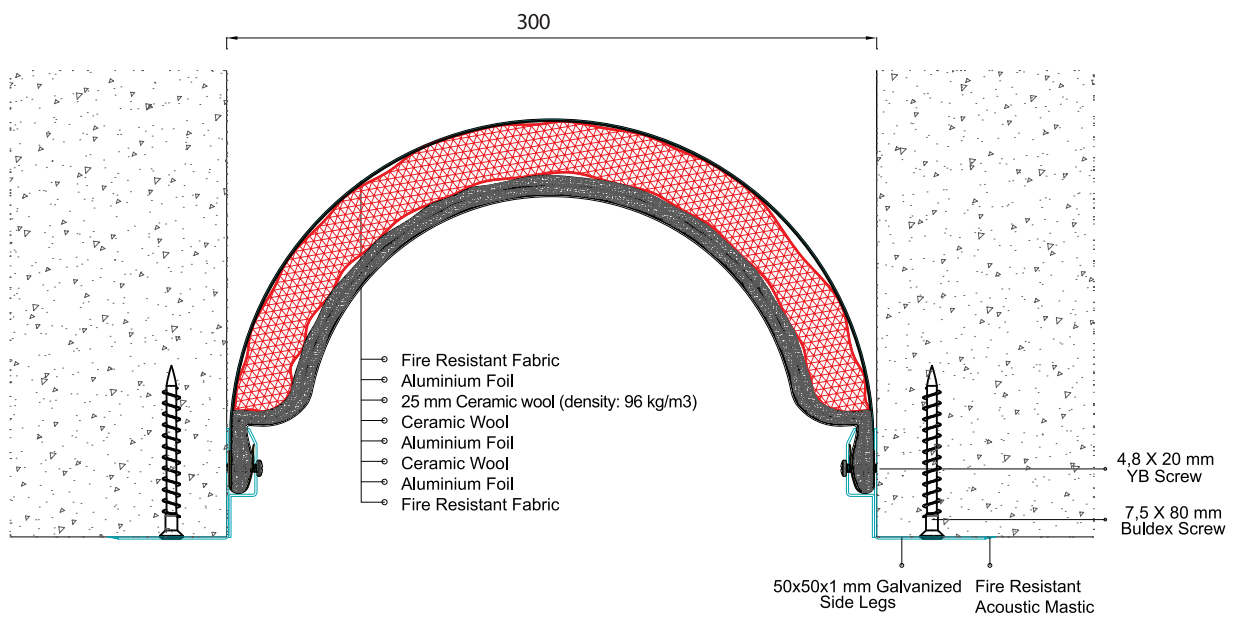
ARFEN FIRE BLANKET (VERTICAL)

Firestop 120 is a high performance, low weight, 7 layer fiberglass fire blanket that is designed to prevent fire and smoke passage in Expansion Joint gaps and also prevents heat transfer and flame transition to cold side. ARFEN fire barriers can be applied easier and faster than traditional solutions. ARFEN fire barriers have designed and tested to resist fire longest when mounted properly. Can be used in vertical and horizontal gaps from 100 mm to 300 mm. Suitable for floor and wall applications. Application areas: Carparks, hospitals, shopping centres, schools, library and etc.

- Vertical Fire Resistance Time: EI120 (EN 13501-2:2016)
- Fire Resistance Classification: EN1366-4:2006 + A1:2010
- Product Sizes: 100- 300 mm
- Vertical Use Suitability: Yes
- Horizontal Use Suitability: No

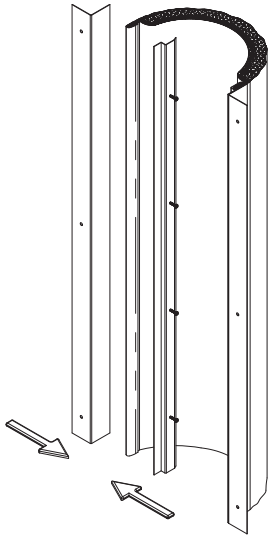


EI120 -EI 20- V- M050 - F - W 100 MM - 300 MM



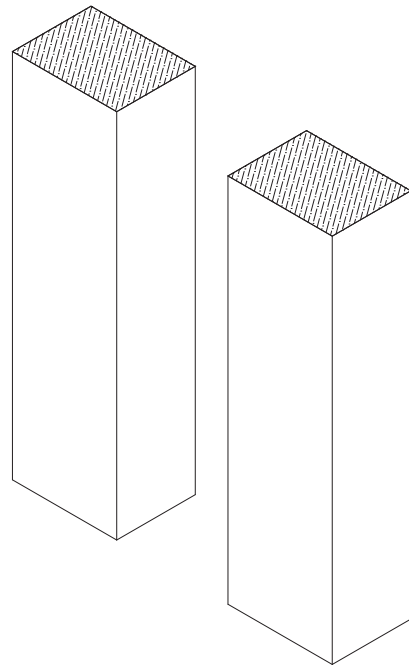
20 MINUTES ISOLATION **120** MINUTES OF INTEGRITY

1st Step



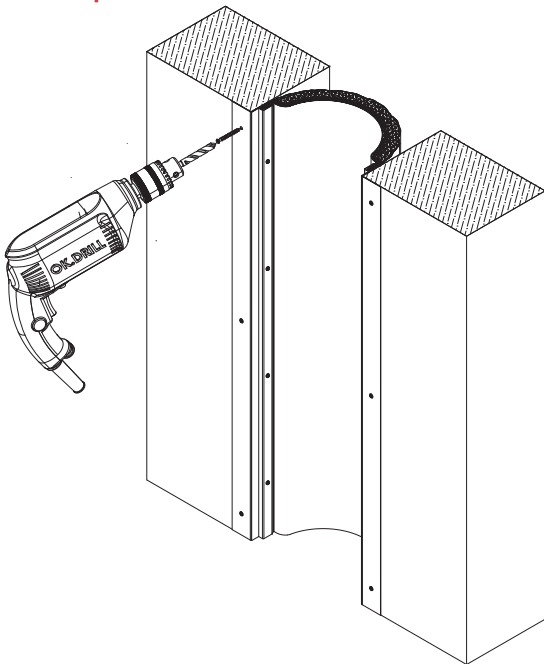
1st Step: The Vertical Fire Barrier detail which is 7 mt long prepared and assemble with galvanized moutage profiles in ARFEN facility and dispatch to the site

2nd Step



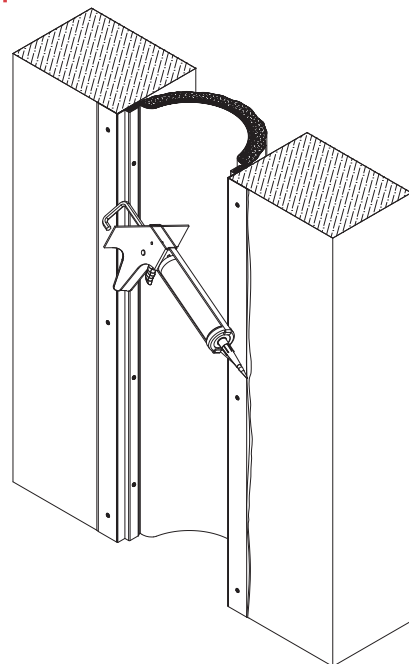
2nd Step: Concrete surface should be cleaned and should be prepared to application

3rd Step



3rd Step: The Vertical Fire Barrier should be placed on the wall and immobilized with 7,5 x 80 mm buldex screw.

4th Step



4th Step: The application will be completed with Fire resistant sealant to prevent any leakage between galvanized moutage profiles and concrete surface

ARFEN CONSUMABLES FIRE-RESISTANT ACOUSTIC MASTIC

An acrylic based firestop sealant that provides movement capability in fire rated joints and seals through-penetrations applications

- Silicone free
- Halogen, asbestos and solvent free
- Paintable
- Tested up to %33 movement with 500 cycles in accordance to UL 2079 and ASTM 1966
- Smoke and fume resistant
- Easy clean up with water
- Single component systems available
- Meets LEED requirements for indoor environmental quality credit 4.1 Low Emitting Materials, Sealants and Adhesives and 4.2 Paints and Coatings

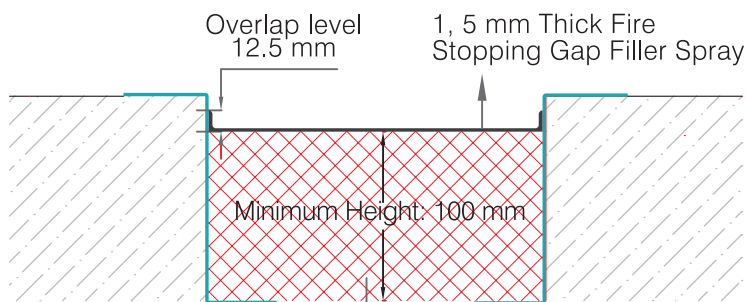
Technical Data	Acoustic Mastic
Chemical basis	Acrylic based firestop sealant
Color	Available in red, white and gray
Application temperature	40°F to 104°F (5°C to 40°C)
Skin-forming time	Approx 15 min
Curing time	Approx 3 mm / 3 days
Average volume shrinkage (ASTM C1241)	22.2%
Movement capability	Approx 10%
Temperature resistance	-22 F to 176 F (-30°C to 80°C)
Surface burning characteristics (ASTM E 84-96)	Flame Spread: 10 Smoke Development: 0
Sound transmission classification (ASTM E 90-99)	56 (Relates to specific construction)



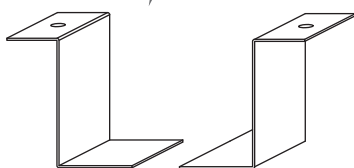
ARFEN FIRE MULTICOATED FIRE STOPPING GAP FILLER

This product is multicoated water based acrylic fire stopping gap filler. Applied on rock wool by a roll or spray internally or externally. ARFEN's fire stopping gap filler has 25% movement capacity of the gap applied in and can resist to fire up to 2 hours.

- Produced in buckets of 5 litre and 15 litre
- Density 1.35 kg/dm³
- Ideal storage temperature: 5.30 C, minimum shelf life is 1 year
- Application Temperature: 5.30 C
- Drying Time: 2-4 hours
- Recommended thickness: Wet sheet thickness 2mm, Dry sheet thickness 1 mm.
- Usage: 1.4 Lt/m²
- Colour: White
- Waterproof. (Limited to 25% movement capacity)
- Note: Rockwool needs to be compressed 33% before fitting in to Expansion Joint Gap.

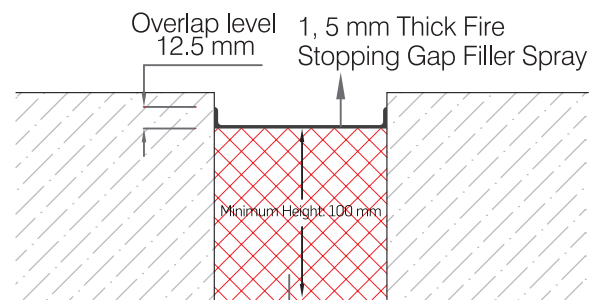


33% compressed
Rockwool density: 80kg/m³



Galvanized bracket used in wide
Expansion Joint gaps.

OPTIONAL

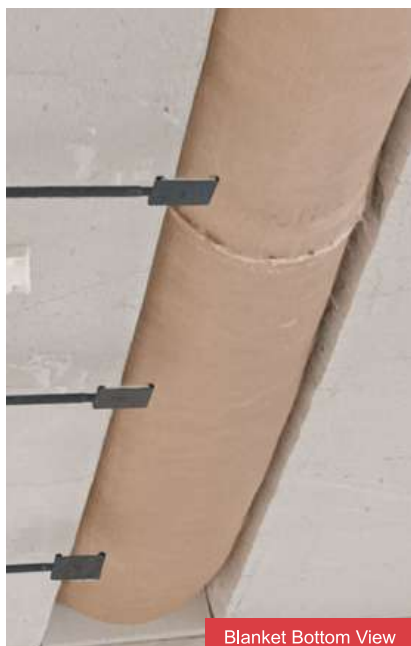


33% compressed
Rockwool density: 80kg/m³

IMAGES DURING FIRE TEST

During Fire Classification and Fire Resistance Test, we passed 180 minutes straight fire resistant according to EN 1366-4:2006 A1:2010 standards.

After Test process, there wasn't any deformation on the ARFEN Fire Blanket at all. Examine images as below. In consequence of deformation at the supporting construction because of losing the security of the test conditions, test was terminated after consulted with the sponsor. Otherwise the test could be finalized up to 240 minutes.



Blanket Bottom View



CERTIFICATES OF ARFEN FIRE BLANKET FOR HORIZONTAL AND VERTICAL APPLICATION

ARFEN passed the European Standards Fire Resistant tests with 3 hours remain form

Efectis

EFFECTIS ERA AVRASYA TEST VE BELGELENDİRME A.Ş.
Dilovası OSB Mahallesi Fırat Caddesi No: 18
Dilovası KOCAELİ/TÜRKİYE
www.effectis.com

TEST CERTIFICATE

Certificate No: EEA - 2000 - 0140

The related resistance to fire test was carried out at **Efectis Era Avrasya Test Laboratory** on **26.10.2020** in accordance with EN 1366-4:2006+A1:2010 standard for the product as described below:

EXPANSION JOINT FIRE CAVITY BARRIER

FIRE RESISTANCE CLASSIFICATION

E 180 - EI 60 - H - M050 - F - W 100 to 300

Placed on the market by
ARFEN İNŞAAT TAAHHÜT SANAYİ ve TİC. A.Ş.
Ömerli Mah. Gülcce Sok. No.22 Arnavutköy/İstanbul
And Produced in the Factory
ARFEN İNŞAAT TAAHHÜT SANAYİ ve TİC. A.Ş.
Ömerli Mah. Gülcce Sok. No.22 Arnavutköy/İstanbul

This test certificate is a declaration of the test results and does not represent or certification of the product. All details related to product specifications and field of application are described in the report **EEA - 20 - 181**. This certificate is initially valid until **26th October 2021** providing that no are made in technical specification of the specimen and related standards.





Ali BAYRAKTAR
Laboratory Manager
10.01.2020

Efectis

EFFECTIS ERA AVRASYA TEST VE BELGELENDİRME A.Ş.
Dilovası OSB Mahallesi Fırat Caddesi No: 18
Dilovası KOCAELİ/TÜRKİYE
www.effectis.com

TEST CERTIFICATE

Certificate No: EEA - 2000 - 0007

The related resistance to fire test was carried out at **Efectis Era Avrasya Test Laboratory** on **08.07.2019** in accordance with EN 1366-4:2006+A1:2010 standard for the product as described below:

EXPANSION JOINT FIRE CAVITY BARRIER

FIRE RESISTANCE CLASSIFICATION

E 120 - EI 20 - V - M050 - F - W 100 to 300

Placed on the market by
ARFEN İNŞAAT TAAHHÜT SANAYİ ve TİC. A.Ş.
Ömerli Mah. Gülcce Sok. No.22 Arnavutköy/İstanbul
And Produced in the Factory
ARFEN İNŞAAT TAAHHÜT SANAYİ ve TİC. A.Ş.
Ömerli Mah. Gülcce Sok. No.22 Arnavutköy/İstanbul

This test certificate is a declaration of the test results and does not represent any type approval or certification of the product. All details related to product specifications and field of application are described in the report **EEA - 19 - 173**. This certificate is initially valid until **10th January 2021** providing that no significant modifications are made in technical specification of the specimen and related test and classification standards.



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For detailed
information,
you can visit
our websites.



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