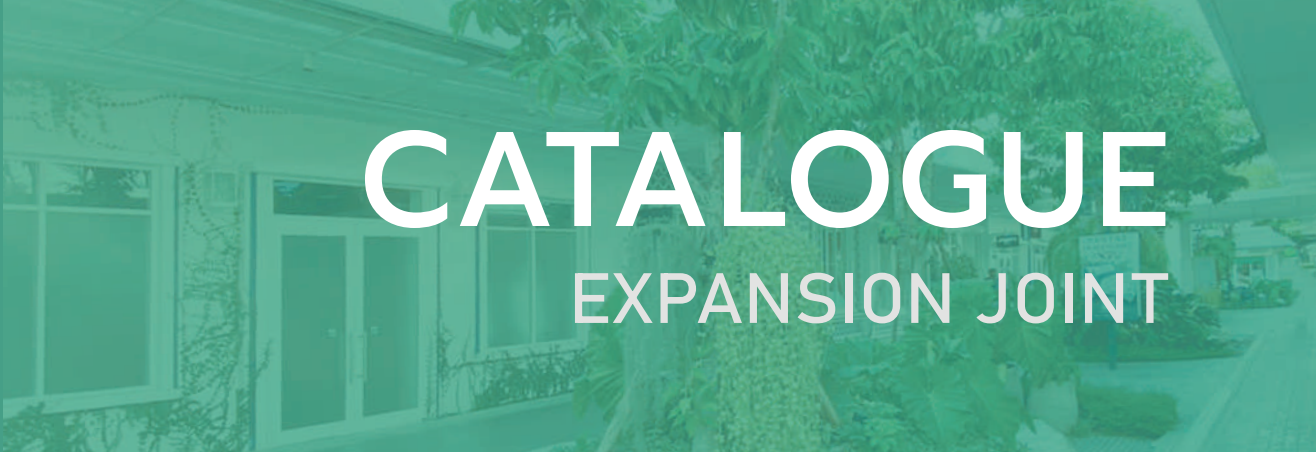


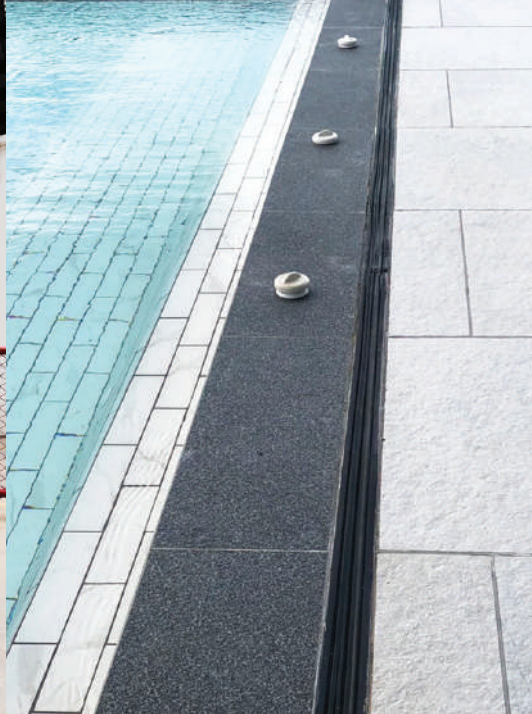


# CATALOGUE

## EXPANSION JOINT







# INTRODUCTION

## BACKGROUND

Inno Viva Company Limited is one of the Thailand's most progressive producer and importers of building material products, we are a fast growing company focus on delivering the best service and quality products to our customers.

Presently we have several major projects in Thailand with particularly strength in Architectural products such as Expansion Joint Cover, Mat Entrance, Wall Protection and Louver.

In addition Inno Viva Company Limited has been certified to the ISO 9001:2015 standard for quality of trading in building and construction materials, with strong experience in architectural products, we are developing products based on extensive survey of international and local market, in an effort to offer the best quality to our customers.



## COMMERCIAL BUILDING PRODUCTS

Inno Viva Company Limited is supplier and manufacturer of commercial building products, with our experienced in specialty construction items, we can minimize cost and time associated with the construction project workflow and provide the right solution to support our client.

# THE SELECTION GUIDE

## FOR EXPANSION JOINT COVER

The information below is an initial reference point for all types of joint covers, customer can be used this information to determination for the specific need of each project.



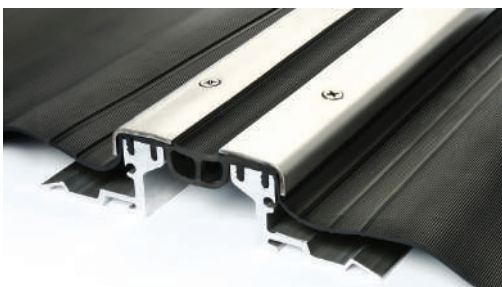
### FLOOR

- In order to select model, area and movement are the initial point to consideration.
- Surface and profiles of joint cover are necessary, for areas with heavy vehicle traffic, heavy duty profiles must be consideration.
- Invisible fold design and smooth surface are recommended for hospitals and pharmaceutical areas.
- Aluminum profiles or stainless steel cover plates are recommended for heavy traffic areas.



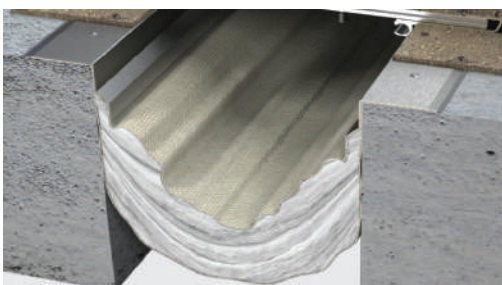
### WALL & CEILING

- Selecting wall & ceiling cover matching with the floor cover profile.
- The required movement of wall & ceiling should be related with existing floor systems.
- Wall & ceiling cover should have fire barrier for safety reason.
- Available for install water membrane.



### ROOF

- The end user's requirements on both appearance and strength (accessible or inaccessible) will dictate the correct selection of the visible material of joint profile.
- Membranes must be installed to protect against water.
- Expansion joint cover must continue to the parapet for at least 20 cm.
- Expansion joint cover must be easily repaired.



### FIRE INSULATION AND WATERPROOFING

- Joints that coincide with fire compartments must be filled with fire-insulating material which will meet the requirements of the fire-safety study.
- Fire insulating material installed in floor joints must be protected from water since the latter usually damages the properties of the material.
- Outside area should install waterproofing to against water.
- Fire insulation and waterproofing are available for most joint and movement dyn

# TECHNICAL DATA

## MATERIALS

### ◆ METALS

Extruded aluminum 6063-T5, 6063-T6, 6061-T6 ASTM B221, Stainless Steel Type 304 hairline finish (HL).

### ◆ ALLOWABLE LOAD

Designed and tested to withstand minimum point load 230 kgs. for standard model and 1,000 kgs. for heavy duty model.

### ◆ ELASTOMERIC SEALS

EPDM, Santoprene, Neoprene.

### ◆ FINISH

Mill Finish, Natural Anodized (NA film thickness 10 +/- 2 micron), Titanium (Ti), RAL Powder Coat.

### ◆ ACCESSORIES / FASTENERS

Fasteners accessories and other materials required for complete installation, see InnoFlex installation instruction.

## FLOOR JOINT COVERS

InnoFlex Expansion joint floor cover has been designed for suite with any floor cover design. Expansion joint floor cover available for aluminum and elastomeric in different models, InnoFlex products developed under focusing as attractive design and high performance, made it easy for installation therefore that is able to provided a variety of types to satisfy customer requirement.

## WALL & CEILING JOINT COVERS

These systems are design to match with wall & ceiling application, we are provide high performance expansion joint cover to match with wall surface, the system available in metal and elastomeric models, easy for installation therefore that is able to provided a variety of types to satisfy customer requirement.

## PARKING JOINT COVERS

InnoFlex Rubber & Elastomeric cover designed for heavy duty traffic, EPDM rubber due to EPDM exhibits satisfactory compatibility with fireproof hydraulic fluids, hot and cold water and UV resistance, InnoFlex joint available in multiple types that be able to match parking floor for customer requirements.

## ROOF JOINT COVERS

InnoFlex Roof cover is available in extruded aluminum ,stainless steel model for heavy duty reason these joint are suitable areas that require watertight. The system combined with extruded aluminum/stainless steel cover for movement capability and moisture barrier sheet to support water resistance.

## VAPOR BARRIER

EPDM rubber gutter moisture collection system is secondary moisture proof use in conjunction with adhesire or mechanical farterned system designed to stop the ingress of water to high-movement joint in building structures.

## FOAM SEAL

InnoFlex provides primary waterproof expansion joint system, sealing expansion joints in exterior areas, watertightness is achieved through foam joint seal, InnoFlex waterproof systems are available for vertical and horizontal line and also offer multi types and a purpose-designed to match with multifunction.

## FIRE BARRIER

InnoFlex fire barrier has been tested and certified by UL 2079, SIST EN 13501-2:2008+A1:2009 the system offer full protection follow standard test require. InnoFlex fire barrier are flexible enough to enable easy installation in less accessible parts of constructions.





# CONTENTS

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**03** WALL & CEILING EXPANSION JOINT COVERS \_\_\_\_\_ P.12

**04** PARKING EXPANSION JOINT COVERS \_\_\_\_\_ P.14

**05** ROOF EXPANSION JOINT COVERS \_\_\_\_\_ P.18

**06** VAPOR BARRIER \_\_\_\_\_ P.20

**07** FOAM SEAL \_\_\_\_\_ P.22

**08** FIRE BARRIER \_\_\_\_\_ P.24

**09** BRIDGE EXPANSION JOINT \_\_\_\_\_ P.26



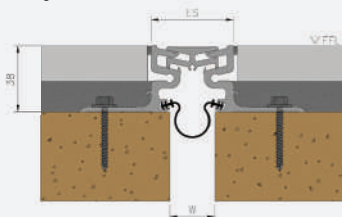
# FLOOR EXPANSION JOINT COVERS

InnoFlex Expansion joint floor cover has been designed for suite with any floor cover design. Expansion joint floor cover available for aluminum and elastomeric in different models, InnoFlex products developed under focusing as attractive design and high performance, made it easy for installation therefore that is able to provided a variety of types to satisfy customer requirement.

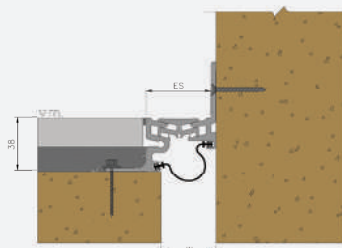
FM200/25



Drawing



FM200/25



FMW200/25

## FM200/25 & FMW200/25

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
FM200/25	25	46	± 10	15	35
FMW200/25	25	46	± 10	15	35

**Material :** Aluminum extrusion

**Color system :** Natural Anodize

**Optional** Mill finish, Powder coat, Titanium Finish.

**Installation characteristics :** The anchor bolt for all aluminum models.

**Optional accessories :** Water barrier systems.

Fire barrier systems.

**Special Features :** Resistant for heavy traffic 1.69 tones of Ultimate load

FM200/25 is use for intensive pedestrian and light vehicle traffic areas such as shopping malls, hospitals, office and residential buildings. It's advantages are decorative surface and easy application, Joint profile compatible with ceramic, granite, marble etc.



EXPANSION AND CONTRACTION



VERTICAL DISPLACEMENT



ADA GUIDELINE COMPLIANT



WEIGHT



CAR

# FLOOR EXPANSION JOINT COVERS

## FMS200/25 & FMSW200/25

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
FMS200/25	25	53	± 7.50	17.50	32.50
FMSW200/25	25	53	± 7.50	17.50	32.50

**Material :** Aluminum extrusion

**Color system :** Natural Anodize

**Optional** Mill finish, Powder coat, Titanium Finish.

**Installation characteristics :** The anchor bolt for all aluminum models.

**Optional accessories :** Water barrier systems.

Fire barrier systems.

**Special Features :** Resistant for heavy traffic 1.25 tones of Ultimate load

FMS200/25 is use for intensive pedestrian and light vehicle traffic areas such as shopping malls, hospitals, office and residential buildings. It's advantages are decorative surface and easy application. Joint profile compatible with ceramic, granite, marble etc.



## FM200 & FMW200

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
FM200/50	50	77	+ 15 / - 10	40	65
FM200/100	100	127	+ 30 / - 25	75	130
FMW200/50	50	77	+ 15 / - 10	40	65
FMW200/100	100	127	+ 30 / - 25	75	130

**Material :** Aluminum extrusion

**Color system :** Natural Anodize

**Optional** Mill finish, Powder coat, Titanium Finish.

**Installation characteristics :** The anchor bolt for all aluminum models.

**Optional accessories :** Water barrier systems.

Fire barrier systems.

**Special Features :** Resistant for heavy traffic 2.69 tones of Ultimate load

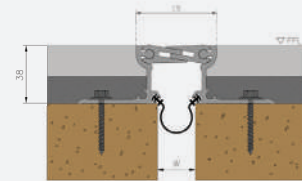
FM200/50, FM200/100 is use for intensive pedestrian and heavy vehicle traffic areas such as shopping malls, hospitals, office and residential buildings. It's advantages are decorative surface and easy application. Joint profile compatible with ceramic, granite, marble etc.



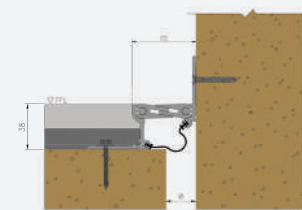
FMS200/25



Drawing



FMS200/25

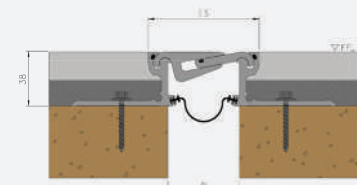


FMSW200/25

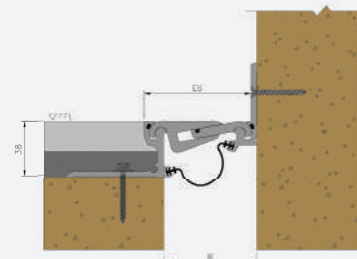
FM200



Drawing



FM200

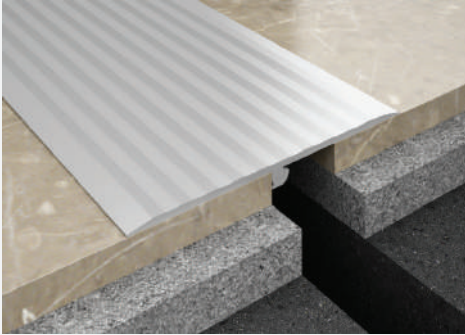


FMW200

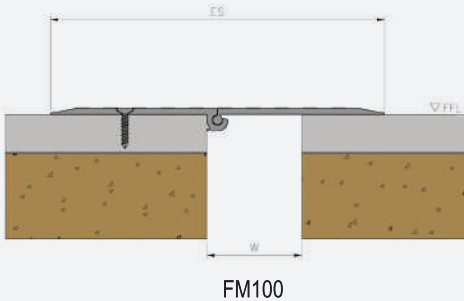


# FLOOR EXPANSION JOINT COVERS

FM100



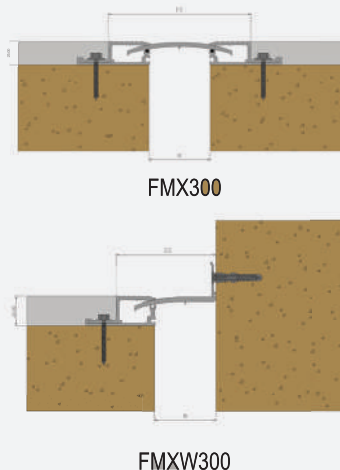
Drawing



FM300



Drawing



## FM100

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
FM100	50	177	± 30	20	80

**Material :** Aluminum extrusion

**Color system :** Natural Anodize

**Optional** Mill finish, Powder coat, Titanium Finish.

**Installation characteristics :** The anchor bolt for all aluminum models.

**Optional accessories :** Water barrier systems.

Fire barrier systems.

FM 100 is aluminum joint profile for over finishing and use for intensive pedestrian and light load areas such as shopping malls, hospitals, office and residential buildings. It is submitted with the assembling holes open and ready.



## FM300 & FMX300

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
FM300/50	50	115	± 25	25	75
FMW300/50	50	83	± 13	38	63
FMX300/50	50	165	± 50	0	100
FMX300/100	100	215	± 50	50	150
FMXW300/50	50	107	± 25	25	75
FMXW300/100	100	157	± 25	75	125

**Material :** Aluminum extrusion

**Color system :** Natural Anodize

**Optional** Mill finish, Powder coat, Titanium Finish.

**Installation characteristics :** The anchor bolt for all aluminum models.

**Optional accessories :** Water barrier systems.

Fire barrier systems.

**Special Features :** FM300 Resistant for heavy traffic 324 kg. of Ultimate load

FMX300 Resistant for heavy traffic 920 kg. of Ultimate load

FM300 & FMX300 is use for intensive pedestrian and light vehicle traffic areas such as shopping malls, hospitals, office and residential buildings. It's advantages are decorative surface and easy application, joint profile compatible with ceramic, granite, marble etc.

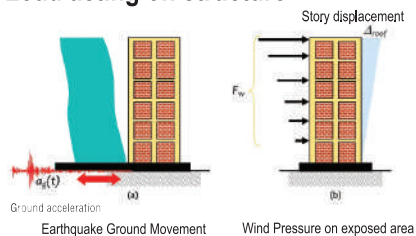




# SEISMIC EXPANSION JOINT COVERS

Expansion joints must accommodate movements produced by concrete shrinkage and creep, post-tensioning shortening, thermal variations, dead and live loads, wind and seismic loads, and structure settlements.

## Load acting on structure



The loads acting on a structure are mainly the vertical and lateral loads. The vertical load consist of dead load and the imposed live loads.

The common lateral load acting on structure are Seismic load & Wind load. Resulting in Multi-directional Movement to structure in various degree and direction.

Seismic expansion joint system designed to accommodate large cyclic multidirectional movements of structure occurs during seismic activity and earthquake to avoid collisions and ensure the durability of the structures.

## AR814 (AR804)

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
AR814-100	100	265	± 50	50	150
AR814-200	200	455	± 75	125	275
AR814-100K	100	177	+25 / -50	50	125

**Material :** Aluminum extrusion

**Color system :** Mill finish

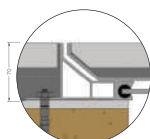
**Optional** Natural Anodize, Powder coat, Titanium Finish.

**Installation characteristics :** The anchor bolt for all aluminum models.

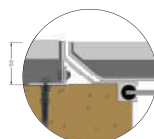
**Optional accessories :** Water barrier systems.

Fire barrier systems.

This seismic expansion joint profile is installed with epoxy mortar. It has stainless steel cover alternative and aluminium alternative. There is TPE sound absorber between middle profile and side leg.



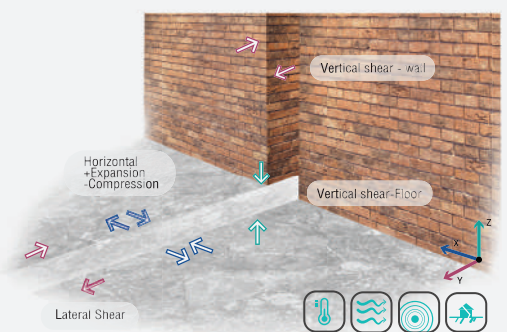
Standard Profile Height = 70 mm.



Customized Profile Height = 50 mm.



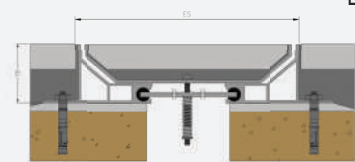
## Multi – directional movement



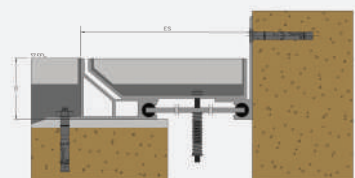
## AR814-100



Drawing



AR814-100



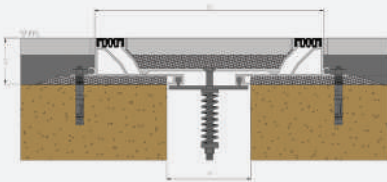
AR814-100K

# SEISMIC EXPANSION JOINT COVERS

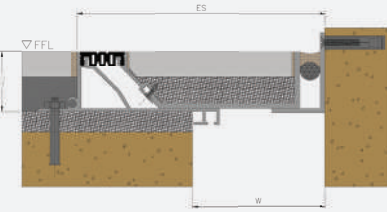
AR802-100



Drawing



AR802-100

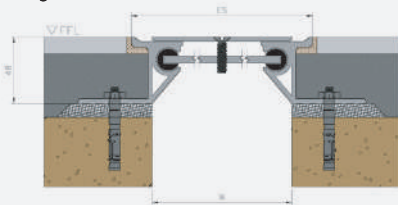


AR802-100K

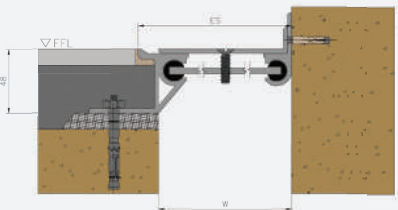
AR813-100



Drawing



AR813-100



AR813-100K

## AR802

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
AR802-100	100	272	± 50	50	150
AR802-200	200	327	+100 / -80	120	300
AR802-100K	100	187	+25 / -50	50	125

**Material :** Aluminum extrusion with Rubber

**Color system :** Mill finish

**Optional** Natural Anodize, Powder coat, Titanium Finish.  
TPE gasket color Black.

**Installation characteristics :** The anchor bolt for all aluminum models.

**Optional accessories :** Water barrier systems.  
Fire barrier systems.

Seismic expansion joint profile for 100 mm width. It is suitable for granite, marble and PVC floor overlats.



## AR813

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
AR813-100	100	130	± 50	50	150
AR813-200	200	230	+60 / -100	100	260
AR813-100K	100	115	± 50	50	150

**Material :** Aluminum extrusion with Stainless steel cover

**Color system :** Mill finish Stainless steel center plate hairline finish.

**Optional** Natural Anodize, Powder coat, Titanium Finish.

**Installation characteristics :** The anchor bolt for all aluminum models.

**Optional accessories :** Water barrier systems.  
Fire barrier systems.

**Special Features :** Resistant for heavy traffic 3 tones of vehicle.

Stainless steel top covered profile is used for many places where high movement capacity and abrasive strength and chemical strength is necessary.



# SEISMIC EXPANSION JOINT COVERS

## FM800 (Joint Width 50-150 mm.)

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
FM800/50	50	299	+140 / -37	13	190
FM800/75	75	299	+140 / -62	13	215
FM800/100	100	299	+140 / -87	13	240
FM800/150	150	299	+140 / -87	63	290
FMW800/50	50	174	+70 / -40	10	120
FMW800/75	75	187	+70 / -65	10	145
FMW800/100	100	202	+70 / -90	10	170
FMW800/150	150	224	+70 / -120	30	220

**Material :** Aluminum extrusion

**Color system :** Mill finish **Optional** Natural Anodize, Powder coat, Titanium Finish.

**Installation characteristics :** The anchor bolt for all aluminum models.

**Optional accessories :** Water barrier systems.  
Fire barrier systems.

This seismic expansion joint profile is installed with epoxy mortar. It has stainless steel cover alternative and aluminium alternative.



## FM800 (Joint Width 200-450 mm.)

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
FM800/200	200	438	+155 / -130	70	355
FM800/250	250	518	+195 / -180	70	445
FM800/300	300	620	+235 / -230	70	535
FM800/380	380	772	+310 / -300	80	690
FM800/450	450	925	+310 / -345	105	760
FMW800/200	200	319	+70 / -160	40	270
FMW800/250	250	384	+85 / -210	40	335
FMW800/300	300	460	+110 / -260	40	410
FMW800/380	380	576	+150 / -340	40	530
FMW800/450	450	687	+150 / -410	40	600

**Material :** Aluminum extrusion

**Color system :** Mill finish **Optional** Natural Anodize, Powder coat, Titanium Finish.

**Installation characteristics :** The anchor bolt for all aluminum models.

**Optional accessories :** Water barrier systems.  
Fire barrier systems.

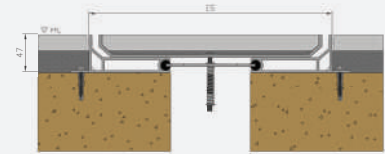
This seismic expansion joint profile is installed with epoxy mortar. It has stainless steel cover alternative and aluminium alternative.



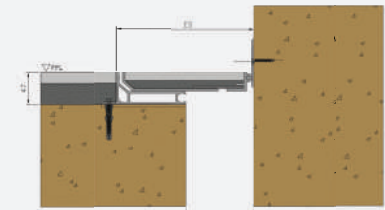
FM800



Drawing



FM800



FMW800

FM800



Drawing



FM800



FMW800



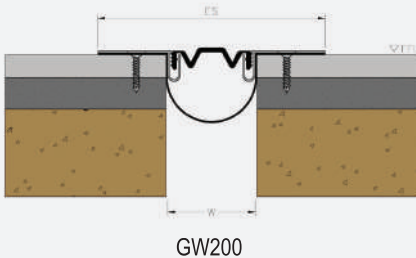
# WALL & CEILING EXPANSION JOINT COVERS

These systems are design to match with wall & ceiling application, we are provide high performance expansion joint cover to match with wall surface, the system available in metal and elastomeric models, easy for installation therefore that is able to provided a variety of types to satisfy customer requirement.

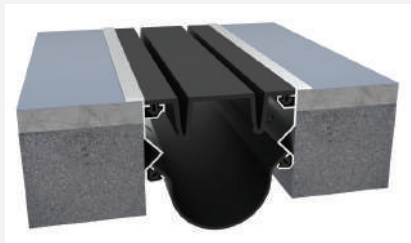
GW200



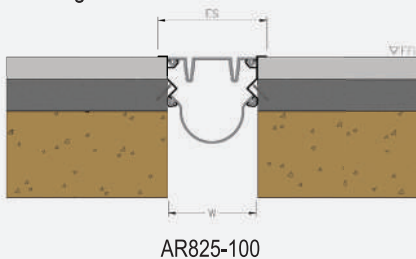
Drawing



AR825-100



Drawing



## GW200 & GWC200

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
GW200/50	50	130	± 25	25	75
GW200/100	100	180	± 50	50	150
GWC200/50	50	90	± 25	25	75
GWC200/100	100	140	± 50	50	150

## AR285

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
AR285/50	50	70	± 25	25	75
AR285/100	100	120	± 75	75	175
AR285/150	150	170	± 75	75	225
AR285/200	200	220	± 100	100	300

**Material :** Aluminum extrusion with Rubber

**Color system :** Mill finish

Black (EPDM)

**Installation characteristics :** The anchor bolt for all aluminum models.

**Optional accessories :** Water barrier systems,

Fire barrier systems.

Wall / Ceiling dilatation profile for over finishing. It is delivered with in an assembled state.



EXPANSION AND CONTRACTION



VERTICAL DISPLACEMENT

# WALL & CEILING EXPANSION JOINT COVERS

## WM100 & WMC100

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
WM100/50	50	127	± 25	25	75
WM100/100	100	200	± 50	50	150
WM100/150	150	250	± 50	100	200
WMC100/50	50	90	± 25	25	75
WMC100/100	100	150	± 50	50	150
WMC 100/150	150	200	± 50	100	200

**Material :** Aluminum extrusion (aluminum expansion joint models).

**Color system :** Mill finish

**Optional** Natural Anodize, Powder coat, Titanium Finish.

**Installation characteristics :** The anchor bolt for all aluminum models.

**Optional accessories :** Water barrier systems.

Fire barrier systems.

Wall / Ceiling joint profile are installed from one side with hidden screw. It use for over finishing.



EXPANSION AND CONTRACTION



VERTICAL DISPLACEMENT

## WM300 & WMC300

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
WM300/50	50	127	± 25	25	75
WM300/100	100	220	± 50	50	150
WM300/150	150	270	± 50	100	200
WM300/200	200	320	± 50	150	250
WM300/300	300	420	± 50	250	350
WMC300/50	50	95	± 12.50	37.50	62.50
WMC300/100	100	168	± 25	75	125
WMC300/150	150	210	± 25	125	175
WMC300/200	200	260	± 25	175	225
WMC300/300	300	360	± 25	275	325

**Material :** Aluminum extrusion (aluminum expansion joint models).

**Color system :** Natural Anodize

**Optional** Mill finish, Powder coat, Titanium Finish.

**Installation characteristics :** The anchor bolt for all aluminum models.

**Optional accessories :** Water barrier systems.

Fire barrier systems.

Wall / Ceiling joint profile for 50 - 100 mm expansion joint gap. It use for over finishing are installed with hidden screw.



EXPANSION AND CONTRACTION

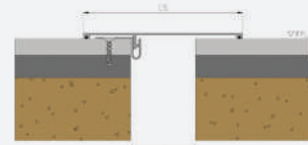


VERTICAL DISPLACEMENT

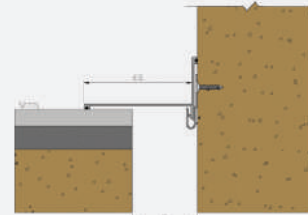
WM100



Drawing

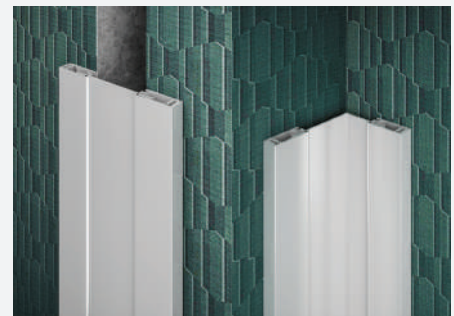


WM100

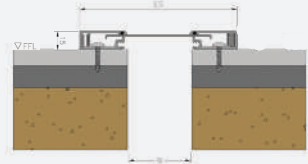


WMC100

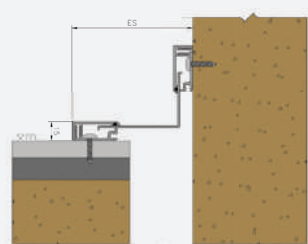
WM300 & WMC300



Drawing



WM300



WMC300



# PARKING EXPANSION JOINT COVERS

■ InnoFlex Rubber & Elastomeric cover designed for heavy duty traffic, EPDM rubber due to EPDM exhibits satisfactory compatibility with fireproof hydraulic fluids, hot and cold water and UV resistance, InnoFlex joint available in multiple types that be able to match parking floor for customer requirements.



# PARKING

## EXPANSION JOINT COVERS

### AR753

#### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
AR753-050	50	192	± 10	40	60
AR753-050K	50	123	± 10	40	60
AR191-100	100	250	± 15	85	115
AR191-100K	100	175	± 15	85	115

**Material :** Aluminum extrusion with Rubber

**Color system :** Mill finish **Optional** Natural Anodize, Powder coat, Titanium Finish.  
TPE gasket color Black.

**Installation characteristics :** The anchor bolt for all aluminum models.

**Optional accessories :** Water barrier systems.  
Fire barrier systems.

#### Special Features :

AR735-050 resistant for heavy traffic 6 tones of vehicle / 3.5 tones of forklift.

AR191-100 resistant for heavy traffic 30 tones of vehicle

Joint profile resistant to heavy loads. It is use for parking industrial floor. It has screw holes on both sides.



EXPANSION AND CONTRACTION



VERTICAL DISPLACEMENT



PARKING



TRUCK



FORKLIFT

### AR911

#### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
AR911-050	50	250	± 25	25	75
AR911-100	100	300	± 50	50	150
AR911-050K	50	150	± 25	25	75
AR911-100K	100	200	± 50	50	150

**Material :** Steel with Rubber

**Color system :** TPE gasket color Black.

**Installation characteristics :** The anchor bolt

**Optional accessories :** Water barrier systems.  
Fire barrier systems.

#### Special Features :

AR911-050 resistant for 14.5 tones of vehicle axle traffic according to AASHTO

AR191-100 resistant for 14.5 tones of vehicle axle traffic according to AASHTO

This composite profile is used for especially carparks, and bridges which is located on roadways or shopping malls (it is not suitable for highway roads).



EXPANSION AND CONTRACTION



VERTICAL DISPLACEMENT

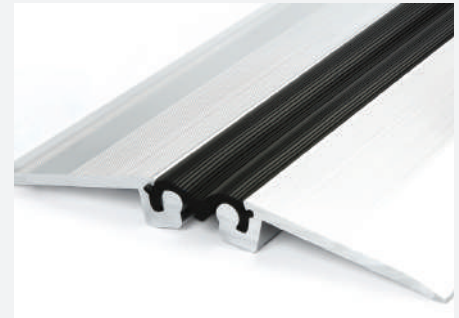


PARKING

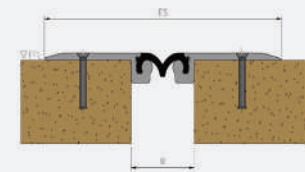


TRUCK

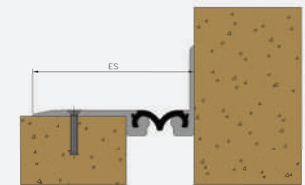
AR753-050



Drawing



AR753-050

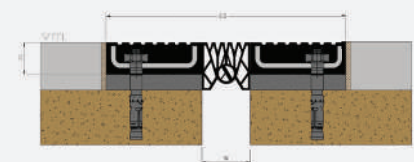


AR753-050K

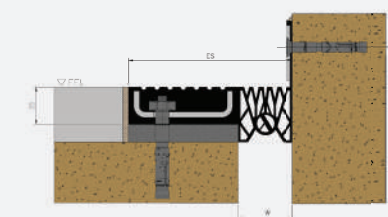
AR911-050



Drawing



AR911-050



AR911-050K

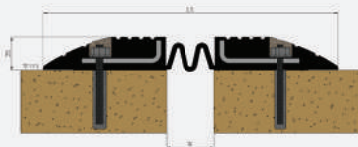
# PARKING

## EXPANSION JOINT COVERS

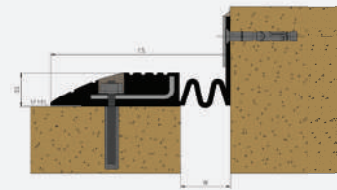
AR921-051



Drawing



AR921-051



AR921-051K

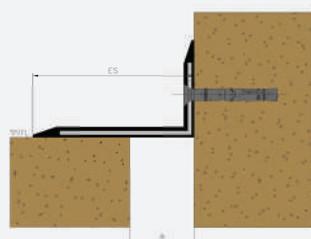
AR951-050



Drawing



AR951-050



AR951-050K

## AR921

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
AR921-051	50	250	± 40	10	90
AR921-100	100	300	± 50	50	150
AR921-051K	50	150	± 40	10	90
AR921-100K	100	200	± 50	50	150

**Color system :** TPE gasket color Black.

**Installation characteristics :** The anchor bolt

**Optional accessories :** Water barrier systems.  
Fire barrier systems.

**Special Features :**

AR921-051 resistant for 6.5 tones of axle load. It has also line over the profile for anti slip.  
AR921-100 resistant for 6.5 tones of axle load. It has also line over the profile for anti slip.

This special composite profile is made of from high quality rubber and steel sheet. Especially it is suitable for carpark area where there isn't any finishing material. It is also best solution for repairing on exist carparkss.



EXPANSION AND CONTRACTION



VERTICAL DISPLACEMENT



PARKING



TRUCK

## AR951

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
AR951-050	50	200	± 50	0	100
AR951-100	100	250	+50 / -100	0	150
AR951-050K	50	125	± 50	0	100
AR951-100K	100	175	+50 / -100	0	150

**Material :** TPE / TPV

**Color system :** TPE gasket color Black.

**Installation characteristics :** The anchor bolt

**Optional accessories :** Water barrier systems.  
Fire barrier systems.

**Special Features :**

AR951-050 resistant for heavy traffic 16 tones of vehicle / 3.5 tones of forklift.

AR951-100 resistant for heavy traffic 16 tones of vehicle / 3.5 tones of forklift.

This special composite profile is made of from high quality rubber and steel sheet. Especially it is suitable for carpark area where there isn't any finishing material. It is also best solution for repairing on exist carparkss.



EXPANSION AND CONTRACTION



VERTICAL DISPLACEMENT



PARKING



TRUCK



FORKLIFT

# PARKING

## EXPANSION JOINT COVERS

### ESH 200

#### Specification

Model	Joint Width		Material Size (mm.)	Movement Capacity (mm.)	Movement Opening	
	(mm.)	(inc.)			Min (mm.)	Max (mm.)
ESH 200/25	25	1	36 x 36	± 11	14	36
ESH 200/38	38	1.5	50 x 50	+12 / -15	23	50
ESH 200/50	50	2	65 x 50	+15 / -20	30	65
ESH 200/60	60	2.5	75 x 50	+15 / -23	37	75
ESH 200/75	75	3	100 x 75	+25 / -31	44	100
ESH 200/100	100	4	125 x 48	+25 / -30	70	125

**Material :** EPDM / TPE.

**Color system :** TPE gasket color Black.

**Installation characteristics :** Epoxy adhesive

Polyurethane sealant adhesion.

**Optional accessories :** Fire barrier systems.

Expansion joint profile use for pre cast element. It is submitted with the assembling holes open and ready.

InnoFlex Epoxy 2 Component 100% Solid Epoxy adhesive



### ESH 300

#### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
ESH 300	50	230	± 25	25	75
ESHW 300	50	140	± 25	25	75

**Material :** EPDM / TPE

**Color system :** TPE gasket color Black.

**Installation characteristics :** Epoxy adhesive

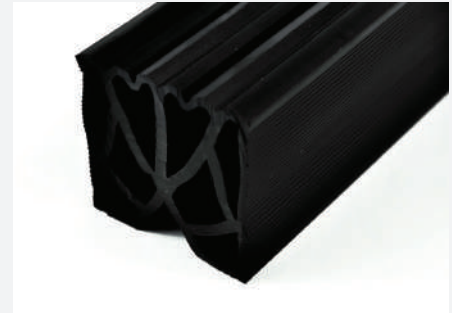
**Optional accessories :** Fire barrier systems.

This profile is made of from high quality rubber / EPDM . Especially it is suitable for carpark area where there isn't any finishing material. Installation must prepare blockout before install.

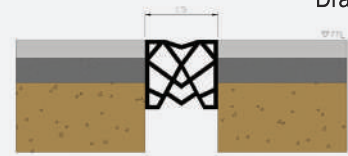
InnoFlex Epoxy 2 Component 100% Solid Epoxy adhesive



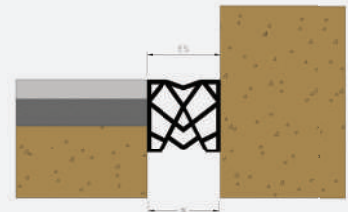
ESH 200



Drawing

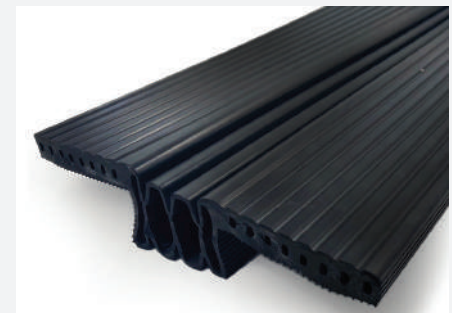


ESH 200

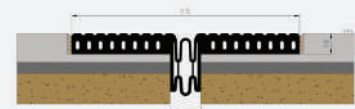


ESH 200

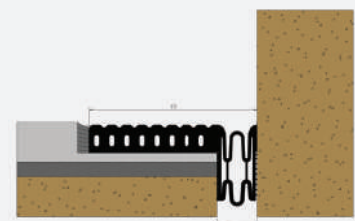
ESH 300



Drawing



ESH 300



ESHW 300

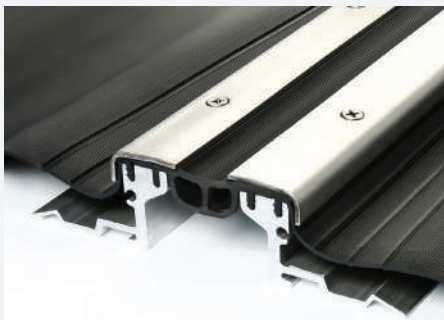




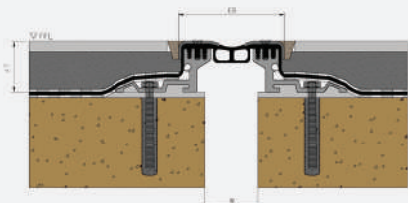
# ROOF EXPANSION JOINT COVERS

InnoFlex Roof cover is available in extruded aluminum, stainless steel model for heavy duty reason these joint are suitable areas that require watertight. The system combined with extruded aluminum/stainless steel cover for movement capability and moisture barrier sheet to support water resistance.

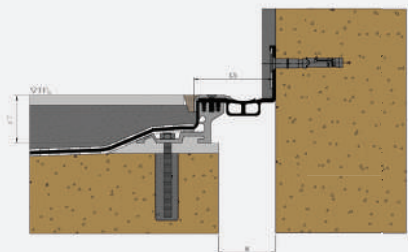
AR600-050



Drawing



AR600-050



AR600-050K

## AR600

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
AR600-050	50	98	± 20	30	70
AR600-100	100	130	± 20	80	120
AR600-050K	50	74	± 20	30	70
AR600-100K	100	122	± 20	80	120

**Material :** Aluminum extrusion with Rubber and Stainless steel cover

**Color system :** Stainless Steel covered plate.

TPE gasket color Black.

**Installation characteristics :** The anchor bolt for all aluminum models.

**Optional accessories :** Fire barrier systems.

**Special Features :** Resistant for heavy traffic 15 tones of vehicle / 6 tones of forklift.

Dilatation profile suitable for terrace, parking areas that require water isolation and bituminous membranes that provide full tightness in wet areas. When thermal insulation is performed over water isolation, the profile system is raised with toe concrete. It is recommended to use geotextile over membrane for protection.



EXPANSION AND CONTRACTION



VERTICAL DISPLACEMENT



ADA GUIDELINE COMPLIANT



TRUCK



FORKLIFT



WATERPROOF

# ROOF EXPANSION JOINT COVERS

## AR500

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
AR500-030	50	300	± 25	25	75
AR500-100	100	350	± 50	50	150

**Material :** Thermoplastic dilatation tape

**Color system :** Black

**Installation characteristics :** Epoxy adhesive

**Optional accessories :** Fire barrier systems.

Thermoplastic dilatation tape that is suitable for bituminous membrane used for isolation purposes in the dilatation gap.



EXPANSION AND CONTRACTION

VERTICAL DISPLACEMENT

WATERPROOF

## RM 100

### Specification

Model	Joint Width (mm.)	Exposed Surface (mm.)	Movement Capacity (mm.)	Movement Opening	
				Min (mm.)	Max (mm.)
RM100/50	50	146	+80 / -30	20	130
RM100/100	100	214	+100 / -80	20	200
RM100/200	200	314	+100 / -125	75	300
RMW100/50	50	98	+40 / -15	35	90
RMW100/100	100	157	+50 / -40	60	150
RMW100/200	200	257	+60 / -60	50	250

**Material :** Aluminum extrusion with EPDM

**Color system :** RM100/50 Natural Anodize.

**Optional** Mill finish, Powder coat, Titanium Finish.

**Color system :** RM100/100, RM100/200 Mill finish.

**Optional** Natural Anodize, Powder coat, Titanium Finish.

**Installation characteristics :** The anchor bolt for all aluminum models.

**Optional accessories :** Water barrier systems.

Fire barrier systems.

This expansion joint profile for application on roof concrete.



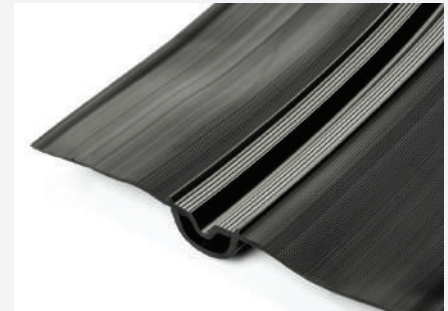
EXPANSION AND CONTRACTION

VERTICAL DISPLACEMENT

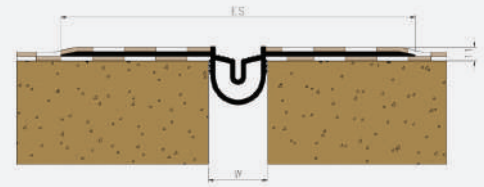
WATERPROOF

SEISMIC

AR500-030

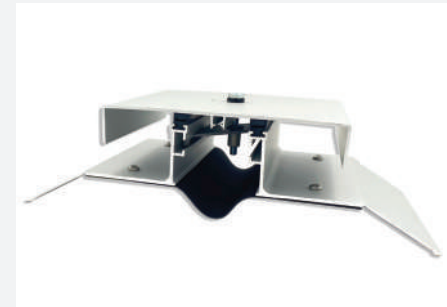


Drawing

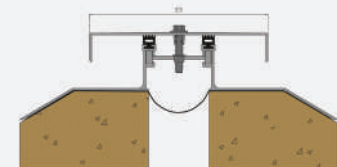


AR500-030

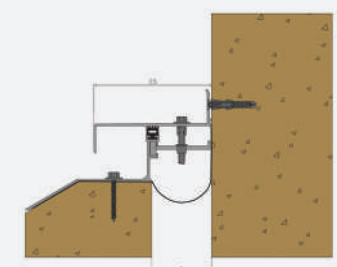
RM 100



Drawing



RM 100



RMW 100



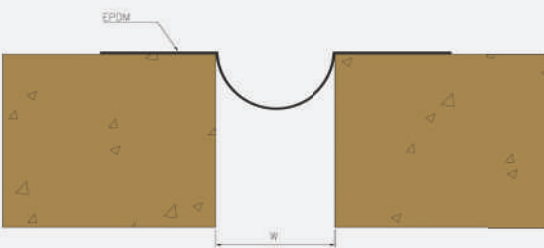
# VAPOR BARRIER

InnoFlex provides secondary vapor/water barrier expansion joint system, flexible EPDM/PVC tape. Vapor/water barrier is installed beneath the expansion joint cover to prevent moisture/water ingress through expansion joint cover.

Water Barrier Tape



Drawing



Water Barrier Tape

## Water Barrier Tape

Flexible Vapor / Water Barrier Tape

### Specification

Model : Water Barrier Tape	Recommended Joint Width (mm.)	Product Width (mm.)	Elongation (%)
WBT 50	25-50	250	200
WBT 100	75-100	300	200
WBT 150	150	500	200
WBT 200	200	600	200
WBT 300	250-300	700	200

### Physical Data

% Elongation	≥200%
Elongation at break (%)	≥450%
Tensile strength (MPa)	≥7.5
Tear strength (kN/m)	≥25
Operating temperature	- 40 C- >80 C

### KEY FEATURES

- Secondary water barrier for expansion joint system.
- Water barrier tape allow up to +-100% movement capability.
- Water barrier taps or combination with epoxy mortar for watertight system.
- Optional Ø 1/2" - 1" drainage tube to move water away.
- Excellent UV resistance for outstanding weather ability in exposed applications.
- Low coefficient of thermal expansion and contraction provides excellent dimensional stability and lay flat characteristics.
- Not susceptible to environmental stress cracking (ASTM D 1693).
- Excellent chemical resistance to most industrial effluents.

**Material :** EPDM (Ethylene-Propylene Diene Rubber) heat-weldable sheet / PVC.

**Color system :** Black, Grey(optional)

expansion joint tape is used for Isolating expansion joint gaps, thermal gaps and cracks on every type of buildings.



EXPANSION AND  
CONTRACTION



VERTICAL  
DISPLACEMENT



WATERPROOF



# VAPOR BARRIER

## Water Barrier Tape Epoxy Sealed

Flexible Vapor / Water Barrier Tape Sealed with Epoxy mortar system

### Specification

Model : Water Barrier Tape Epoxy Sealed	Recommend Joint Width (mm.)	Product Width (mm.)	Elongation (%)
WBE 50	25-50	250	200
WBE 100	75-100	300	200
WBE 150	150	500	200
WBE 200	200	600	200
WBE 300	250-300	700	200

### Physical Data

% Elongation	≥200%
Elongation at break (%)	≥450%
Tensile strength (MPa)	≥7.5
Tear strength (kN/m)	≥25
Operating temperature	- 40 °C - >80 °C

High performance vapor barrier system for construction joints, expansion(movement) joints or cracks where differential settlement is expected.

The system allows variable and high levels of movement in various directions, horizontal, Lateral Shear & Vertical movements whilst maintaining a watertight seal.

The System consists of a water barrier tape based on PVC / EPDM sheet bonding with 3-part Epoxy Mortar.

**Material :** EPDM (Ethylene-Propylene Diene Rubber) heat-weldable sheet / PVC.

**Color system :** Black, Grey(optional)

**Installation characteristics :** Epoxy mortar for Water barrier Tape Sealed only.

## EPOXY

### Epoxy-Bonded Epoxy Mortar

Solvent-free 3 component liquid cold or warm hardening epoxy resin (A,B) mixed to processed dry silica sand/cement (C).

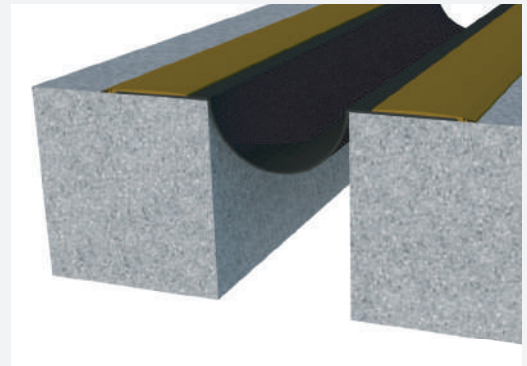
**Part A** Epoxy Resin

**Part B** Epoxy Hardener

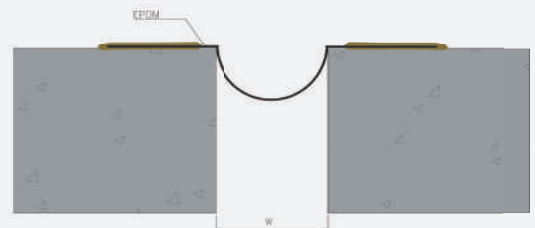
**Part C** Aggregate Sand Cement

Technical Data	Part A Epoxy Resin	Part B Epoxy Hardener	Part C Aggregate Sand Cement
Color	clear	Amber	-
Viscosity cps. (Brookfield RVT)	6,000-8,000 4/20/30 °C	20,000-30,000 6/10/30 °C	-
Storage life	1 Year/ RT		-
Combustibility	Hardly inflammable		-
Mixing ratio	1 part by weight 1 part by volume	1 part by weight 1 part by volume	1 part by weight 3.5 part by volume
Gel time	1.5-2.0 hrs.		-

Water Barrier Tape Epoxy Sealed



Drawing



Water Barrier Tape Epoxy Sealed

Epoxy

Part A Epoxy Resin



Part B Epoxy Hardener



Part C Aggregate Sand Cement







# FOAM SEAL

- InnoFlex provides primary seal for expansion joint system in exterior or wet areas, watertightness is achieved through foam joint seal, InnoFlex waterproof systems are available for vertical and horizontal line and also offer multi types and a purpose-designed to match with multifunction. Including UL2079 fire and water resistant expansion joint system.



# FOAM SEAL

## Metazeal



### Specification

Model	Joint Width		Material Size (mm.)	Movement Capacity (mm.)	Movement Opening	
	(mm.)	(inc.)			Min (mm.)	Max (mm.)
MZ 1.25	25	1	31.75 x 50.80	+14.69 / -9.12	15.88	39.69
MZ 1.875	38	1.5	47.63 x 50.80	+21.53 / -14.19	23.81	59.53
MZ 2.50	50	2	63.50 x 50.80	+29.38 / -18.25	31.75	79.38
MZ 3.75	75	3	95.25 x 76.20	+33.51 / -27.37	47.63	108.51
MZ 5.0	100	4	127 x 88.90	+58.75 / -36.5	63.50	158.75

**Material :** Pre formed closed cell

**Color system :** Grey

**Installation characteristics :** Epoxy adhesive

**Optional accessories :** Fire barrier systems.

Metazeal is a UV stable, pre-formed closed-cell, low-density PE (polyethylene) foam joint seal. Metazeal has a higher maximum operating temperature, 212 F - this material acts as a water tight, seismic expansion joint seal.

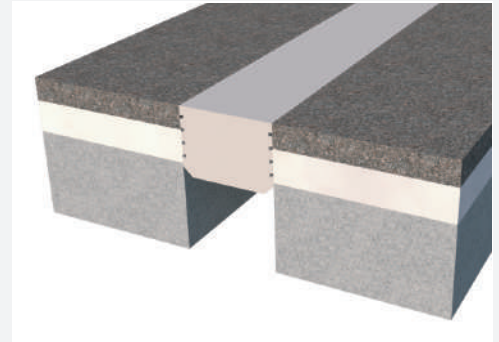
\* Meets ASTM 1056 Type 2, Class B, Grade 2 & AASHTO T-42-84 Modified.

**Eva-Pox Bonder #1 Beige/Grey :**

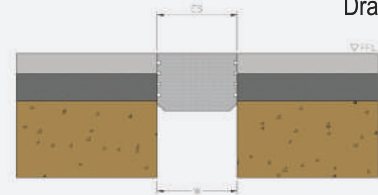
- Two-component 100% solids premeasured epoxy adhesive.
- Bonding agent for pre-formed closed cell foam joints and ECrete 57N.
- Adheres well to elastomeric concrete, cured concrete, and steel.
- Offered in either beige or grey color to match the surrounding substrate.



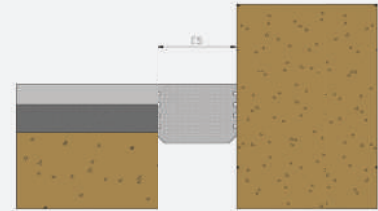
Metazeal



Drawing



Metazeal



Metazeal

## Emshield DFR 2



### Specification

Model	Joint Width		Depth of Seal (mm.)	Movement Capacity (mm.)	Movement Opening		Fire-Rated (Hr.)
	(mm.)	(inc.)			Min (mm.)	Max (mm.)	
DFR2-0100	25	1	100	± 12.50	12.50	37.50	2
DFR2-0150	40	1.5	100	± 20	20.00	60.00	2
DFR2-0175	45	1.75	100	± 22.50	22.50	67.50	2
DFR2-0200	50	2	100	± 25	25.00	75.00	2

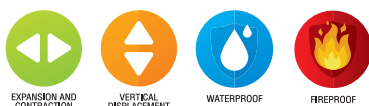
**Material :** Pre formed closed cell with traffic-grade silicone (Top) and fire-retardant (Bottom)

**Color system :** Grey

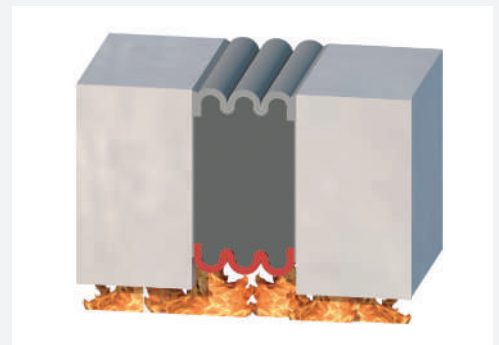
**Special Features :**

- 2-Hour Fire Rated to UL 2079
- Meets the requirements of ASTM E1966, ASTM E119 and ASTM E1399
- One Install Does It **All-fire-rated, watertight**, traffic bearing, 100% movement, quiet, non-invasive anchoring, UL 2079 Certified for decks and floors

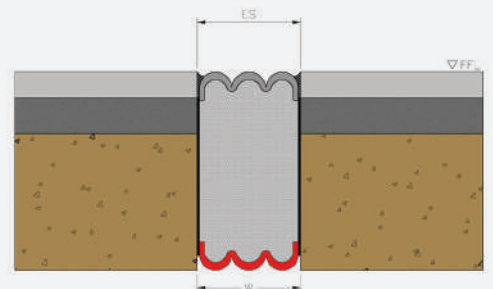
Emshield® DFR2 Single-Unit, 2-Hour, UL2079 fire and water resistant expansion joint system for floors and decks. Emshield DFR2 is tested and certified by Underwriters Laboratories (UL), to the rigors of UL 2079 for deck and floor expansion joints as well as to California Department of Public Health CDPH/EHLB/Standard Method Version 1.2, 2017 for low-emitting materials.



Emshield DFR 2



Drawing



Emshield DFR 2



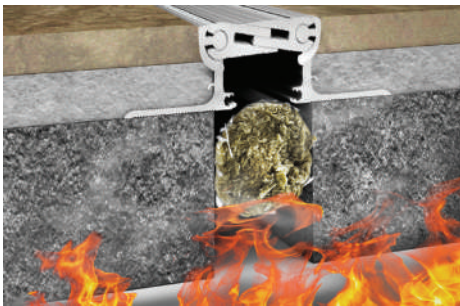
# FIRE BARRIER

InnoFlex fire barrier has been tested and certified by UL 2079, SIST EN 13501-2:2008+A1:2009 the system offer full protection follow standard test require. InnoFlex fire barrier are flexible enough to enable easy installation in less accessible parts of constructions.

## Product Certification and Approvals

### Glossary of Terms

UL Listing	UL certifies, validates, tests, inspects and audits. The UL Mark is the most common Certification Mark in the United States and Europe. If a product carries one of these mark, it means UL found that the representative product samples met UL's requirements.
EN 1366-3, EN 1366-4	Fire Resistance tests for service installations. Penetration seals. Fire Resistance tests for service installations. Linear joint seals.
EN 13501-1, EN 13501-2	Reaction to Fire Classification. Resistance to Fire Classification.



**Material :** Rock Wool Insulation Ropes

**Installation characteristics :** Compress in joint width.

**Technical Specification :** Complete range of Insu-Rope products is certified by SIST EN 13501-2:2008+A1:2009 with 4-hours fire resistance rating, vertical and horizontal application, which was achieved in SIS EN 1366-4:2006 test for both

## INSU-ROPE



### Specification

Joint Width (mm.)	Recommended Insu-Rope Size (mm.) (Single / Double Rope)	Movement Opening	Fire-Rated
25	40	+20% / -80%	EI240
40	50 , 60	+20% / -80%	EI240
50	60 , 70 / 40 + 40	+20% / -80%	EI240
75	90 , 110 / 40 + 60	+20% / -80%	EI240
100	90 , 140 / 60 + 60	+20% / -80%	EI240

Tested and certified by SIST EN 13501-2:2008+A1:2009



### INSU-ROPE Rock Wool Insulation Rope.

Fire Protection	Working temperature :	< 750 °C
	Melting Point	> 1000 °C
	Range of Burn - Retardant	A1
Lower Thermal Losses	Demands for Fire safety	Extraordinary
	Thermic Conductance	0.035 W/mK-0.040W/mK
Sound Protection		Meets High Requirements

"Insu-Rope rock wool insulation ropes with different diameters and for different purposes. Insulation ropes are flexible enough to enable easy installation in less accessible parts of constructions." For fire and thermal protection of construction expansion joints we use Insu-Ropes of different diameters. In case of fire this insulation solution slows down the spread of fire, fume and toxic gases, and consequentially provides more time to evacuate people. Rock wool insulation ropes also contribute to maintain appropriate microclimate in buildings; "its vapour permeability protects buildings from humidity."

# FIRE BARRIER

## LGS - Stopseal Linear Gap Seal



LGS

### Specification

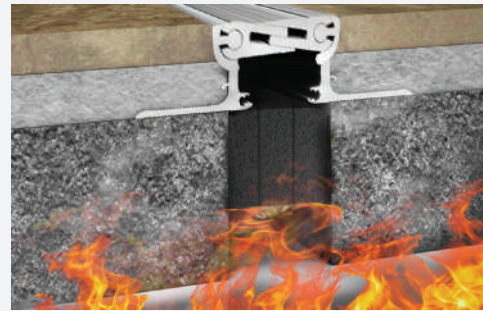
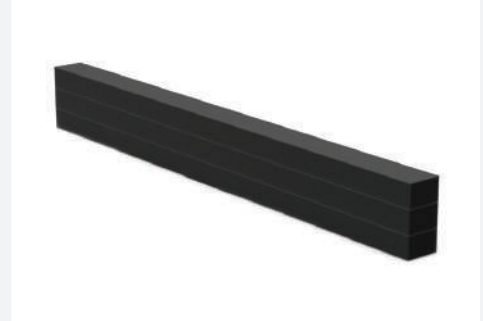
Model	Min. Joint Width (mm.)	Max. Joint Width (mm.)	Product Depth (mm.)	Fire Resistance Performance(min.)
LGS25/2	21	25	20	120
LGS50/2	36	50	35	120
LGS75/2	66	75	50	120
LGS100/2	76	100	100	120
LGS125/2	101	125	125	120
LGS150/2	126	150	100	120

**Material :** Intumescent thermoplastic filled with flame retardants and binders  
**Color system :** Black

Stopseal Linear Gap Seal is an elastomeric foam laminated with a graphite based intumescent layered on both sides. It is designed to perform as a 2 barrier in construction movement joints and is tested to EN 1366-4 and BS476. It is designed for linear installations in horizontal and vertical applications. Stopseal Linear Gap Seal is suitable for use between rigid horizontal and vertical fire resistant structural elements.

### Technical Feature

- Fire resistance testing to EN 1366-4 + A1 : 2010 E 120, EI 120 and BS476.
- Up to 120mins available.
- Acoustic Isolation to EN 10140 to 18dB.
- Air Permeability testing to EN 1026 to 600Pa - 100Pa 3.3/1.7 m<sup>3</sup>/h/m<sup>2</sup> with Flexi-Coat.
- Tested in Linear Joints up to 150mm wide.
- Joint movement capability of 50%.



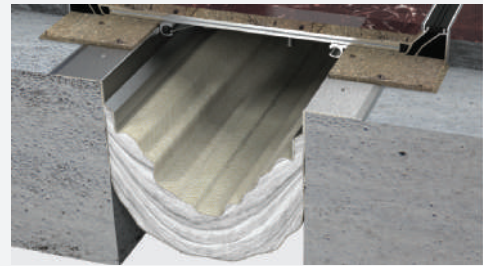
## Fire Blanket Expansion Joint System

Fire Blanket are designed to prevent fire and smoke passage from small to large openings in Expansion Joint and also prevents heat transfer and flame transition to cold side with ±50% movement capability mechanical fixed metal flanged edge permits unrestrained movement without compromising the integrity of the barrier.

### Specification Fire Test : EN 1366-4 (BS476)



Model	Initial Gap (mm.)	Minimum Gap (mm.)	Maximum Gap (mm.)	Classification
FS 50	50	40	75	E180 - EI60 - H - M50 - W100 E120 - EI20 - V - M50 - W100
FS 100	100	40	150	E180 - EI60 - H - M50 - W100 E120 - EI20 - V - M50 - W100
FS 150	150	40	225	E180 - EI60 - H - M50 - W100 E120 - EI20 - V - M50 - W100
FS 200	200	40	300	E180 - EI60 - H - M50 - W100 E120 - EI20 - V - M50 - W100
FS 250	250	40	375	E180 - EI60 - H - M50 - W100 E120 - EI20 - V - M50 - W100
FS 300	300	40	450	E180 - EI60 - H - M50 - W100 E120 - EI20 - V - M50 - W100



### Specification Fire Test : ASTM E1966, ASTM E1399, ASTM E119



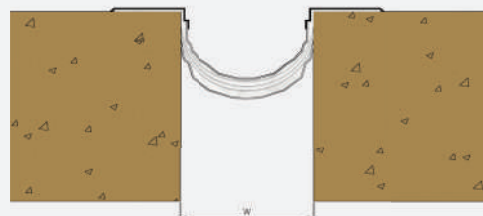
Model	Initial Gap (mm.)	Minimum Gap (mm.)	Maximum Gap (mm.)	Classification
FS 50	50	25	75	120 min.
FS 100	100	50	150	120 min.
FS 150	150	50	225	120 min.
FS 200	200	50	300	120 min.
FS 300	300	50	450	120 min.

### Specification Fire Test : BS476



Model	Initial Gap (mm.)	Minimum Gap (mm.)	Maximum Gap (mm.)	Classification
FS 50	50	25	75	180 min.
FS 100	100	50	150	180 min.

Drawing



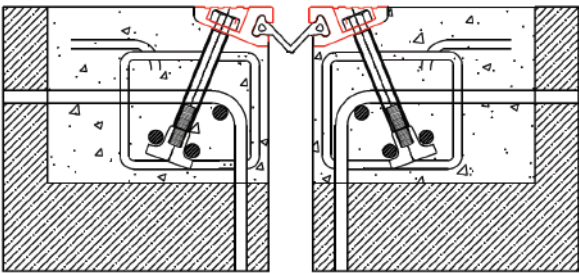
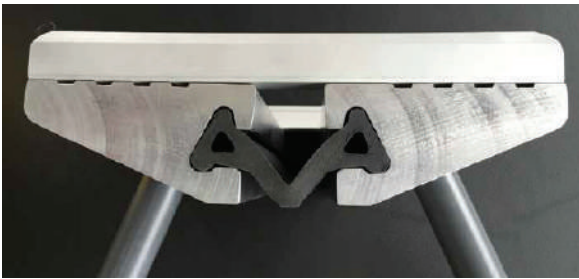
FIRE BLANKET



# BRIDGE EXPANSION JOINTS

Aluminum expansion joints are manufactured from high quality aluminum frame and sealed rubber. The aluminum series allows the joint to be deformed and stretched. These expansion joints are equipped with surface gutters that allow for convenient water drainage.

## BRIDGE EXPANSION JOINTS



### Specification

Model	Movement Capacity	Installation Gap	Profile Length	M20 Bolt Range
A-BE 80	0-80 mm	40 mm	2000 mm	200 mm
A-BE 100	0-100 mm	50 mm	2000 mm	200 mm
A-BE 120	0-120 mm	60 mm	2000 mm	200 mm

### FEATURES

- Installation is easy
- You can choose seal type from 2 different model
- Movement Capacity up to 120 mm
- M20 Galvanised Anchors are used
- Continuous seal so water tight jointing system
- Frames extruded from special grade of aluminium
- Smooth passing over the expansion joints do to the flush finish with traffic surface
- Foot path cover plates can be provided if required
- Seals can cover vertical misalignment and limited skew angle

### Product Certification and Approvals

Features	Benefits
Metallic frame and Rubber Seal	It is produced from high quality aluminum frame and rubber seal materials.
Versatile	Design allows the Arfen BE Aluminium Series to handle any joint configuration incorporating directional changes and or skews.
Skid Resistant	Each expansion joint is provided with molded surface grooves which allow for proper water drainage.
Low Noise	Their special design cause little noise while vehicles pass over it.
Long Service Life	Design of Arfen BE Aluminium Series which is Aluminium frame and rubber seals to cover the heavy traffic also rubber is strong against to surface oil, grease, oil, chemicals, resistant to UV rays, snow and salt





# SINGLE SPAN STEEL EXPANSION JOINTS

■ Steel Expansion Joint (SEJ) consists of an elastomeric strip seal (EPDM) mechanically locked between two steel edge profiles which provides a superior watertight sealing system. This system can easily carries heavy traffic loads while providing a watertight seal. SEJ system has versatile units that will accommodate a variety of field configurations as well as multi-directional movements up to  $\pm 50$  mm movement in longitudinal and  $\pm 20$  mm movement in transversal directions.

## SINGLE SPAN STEEL EXPANSION JOINTS

All rubber (NR-CR) elements to be used in expansion joints are manufactured according to the relevant EN and DIN norms.

The waterproofing of the joint system is provided in one piece with the appropriate sealing element. The sealing element is manufactured so that it will fit into the housing which continues along an entire profile. They are planned and manufactured in such a way that they will not tear, break, stand out and touch the vehicle wheel surfaces due to dynamic movements (traffic, seismic loads), removable from the place where necessary (maintenance, repair, replacement) to prevent surface waters from flowing down or leaking.

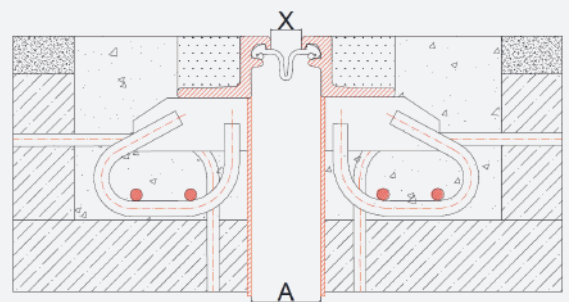
### Technical Data

Model	Joint Width (X)			Min. Install Width (A)
	Min (mm)	Max (mm)	Total (mm)	
BE 80	0	80	80	80
BE 100	0	100	100	100

### Key Features

- Corrosion protected steel with S235 JR grade
- Mechanically Locked Seal
- Continuous Sealing Elements
- Racking movement capability (Selective profile of Sealing Element)
- Heavy-duty system
- Multi-directional movement capability
- Designed and manufactured to meet project requirements
- Flexible applications
- Self-Debris Expelling Capability
- Less prone to Abrasion

SINGLE SPAN STEEL EXPANSION JOINTS





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