FLEXJOINT EP

EXPANSION JOINT WATERPROOF SYSTEM

DESCRIPTION

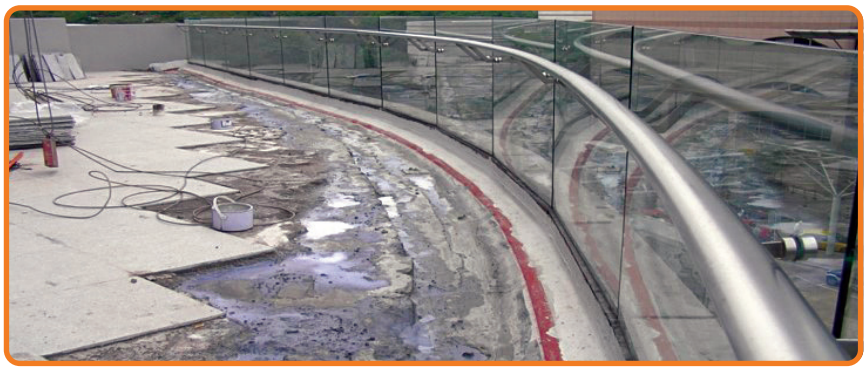
FLEXJOINT EP is a high performance expansion joint waterproofing system. They are based on a technology developed in Switzerland for more than 15 years.

The **FLEXJOINT EP** range comprises of **FLEXJOINT EP** 40, 40G, 100 and 240. **FLEXJOINT EP** membranes set in epoxy adhesive over concrete, metal, glass and almost any construction material.

WHY FLEXJOINT EP?

FlexJoint Waterproofing	No need raised curbs, no loops or U-shaped gutters underneath with free water flow across the roof.
Simultaneous 3 Way Expansion	Can handle all the movements, i.e. Horizontal, Vertical and Shear.
Monolithic Joint	No hand-welding required with the usage of automatic vulcanisation machine reducing the room for human mistakes.
Reinforce Edges	Strong and stable bonding that even structural movements cannot affect its performance.
Non Reinforced Central Part	Highly elastic expansion area, takes movements up to +/- **240mm.**
Compatiblity	**FLEXJOINT EP** is compatible with a wide range of waterproofing system, whichever the chemical base is.
Fast Installation	Pre-cut rolls with length according to the site measurements can be provided. Prefabricated special pieces can be provided as well.
Proven Performance	More than 15 years reference, tested and approved worldwide.





TYPE

EXPANSION JOINT

ADVANTAGES

MONOLITHIC & SEAMLESS | SWISS STANDARD | HIGH ELONGATION | HIGH TENSILE

COMPONENT

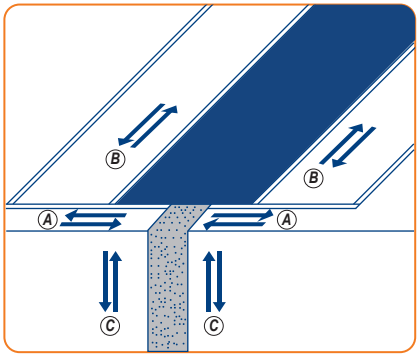
1 PART

FLEXJOINT EP

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TECHNICAL DATA

FLEXJOINT EP base material is a High-Grade EPDM elastomer synthetic rubber (Ethylen - Propylen - Diene - Monomer with a saturated polymethylene main chain). **FLEXJOINT EP** is reinforced at both edges with a strong Polyester fleece on both face.



High Chemical resistance

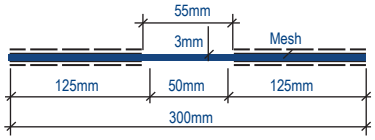
Ozone, alkali, acids, and saline solution; water and steam; polar solvents, such as alcohol and ketone. Lower resistance to homopolar emollients and solvents (e.g. mineral oils, benzene, fuels and aromatic compounds, such as toluene). Prolonged contact with these agents should be avoided.

Property	Unit	Method	Result
Hardness	Shore A	DIN 53505	45 ± 5
Tensile Strength	N/mm^2	ASTM D412	> 10
Elongation	%	DIN 53504	> 800
Tear Strength	N/mm		> 5
Water Vapour Permeability	g/m^2xday		2.50
Temperature Resistance	° Celsius		Up to 90
Cold Flexibility	° Celsius		- 40

FLEXJOINT EP RANGE MAF (MOVEMENT ACCOMMODATION FACTOR)

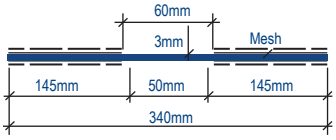
FLEXJOINT EP 40

A - Horizontal movement : **± 50mm**
B - Shear movement : **± 20mm**
C - Vertical movement : **± 20mm**



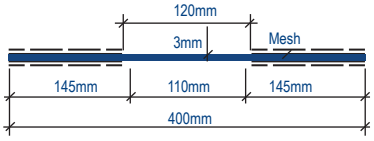
FLEXJOINT EP 75

A - Horizontal movement : **± 40mm**
B - Shear movement : **± 20mm**
C - Vertical movement : **± 30mm**



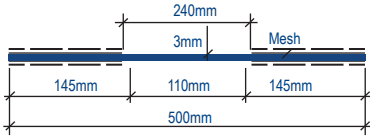
FLEXJOINT EP 100

A - Horizontal movement : **± 100mm**
B - Shear movement : **± 50mm**
C - Vertical movement : **± 75mm**



FLEXJOINT EP 240

A - Horizontal movement : **± 240mm**
B - Shear movement : **± 120mm**
C - Vertical movement : **± 180mm**



Important Note:

The Elongation at break of **FLEXJOINT EP** is at 500%. The values stated here concern movements to take place daily for the whole service life of **FLEXJOINT EP.**



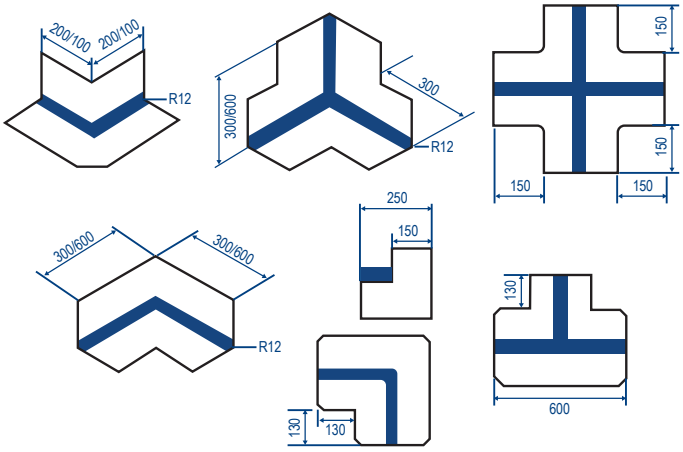
FLEXJOINT EP

EXPANSION JOINT WATERPROOF SYSTEM

TECHNICAL DATA

Special Detail Pieces

The layout of expansion joints does not follow straight lines. Frequently they are laid along column. The layout of such expansion joint requires a considerable detailing effort at changes in direction, as well as at their termination.



Documented Quality and Reliability

FLEXJOINT EP expansion joint waterproofing systems are manufactured in production units with ISO 9001 certification.

They have been tested and approved by several internationally recognised Laboratoties and Authorities.

Copies of those reports are available on request.



Laboratory	Reference	Test Purpose
STUVA	1992 1997	Sealing systems for parking decks seals and for seals to withstand water pressure.
LPM	1994 No. 15061 - 1 No. 15063 - 1	Expansion and contraction testing of RedLINE applied on concrete, metal and bitumen surfaces with epoxy resin.
EMPA	No. 171 123 20.01.1998	Adhesion of RedLINE on metal sheet with Epoxy resin.
FLL	01.12.1999	4 years test on root resistance.
AbP	No. 22000609 09.06.2000	RedLINE material tests.

INSTALLATION DATA

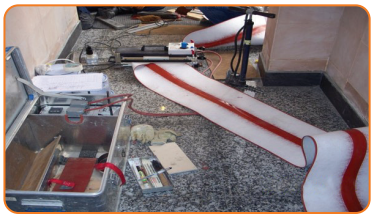
Odering FLEXJOINT EP

FLEXJOINT EP expansion joints membranes are produced in “endless” rolls, with a project layout, Flexjoint will pre-cut the rolls in length adapted to the site conditions to reduce the number of seams on site as well as overlaps and wastage.

T-joints, X-joints, corners, curves and other details are not manufactured on site but prefabricated in one of the Flexjoint Workshop.







Substrate Preparation With CMFIX 100 over Concrete:

Follow the **CMFIX 100** Manufacturer instruction or apply the relevant standard.

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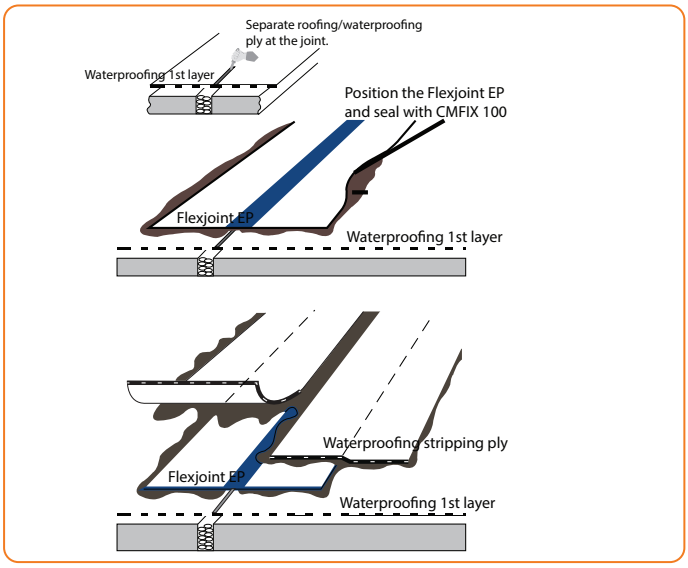
TECHNICAL DATA

FLEXJOINT EP Installation

Lay the **FLEXJOINT EP** membrane rolls, with the logo side up over the expansion joints and ensure proper length and detailing. **FLEXJOINT EP** can accomodate a pre-installation movement up to 2mm per meter. Notify **Chemind** of any discrepancies in length or detailing before installation.

Ensure that the material **FLEXJOINT EP** is dry, if by any chance it has been exposed to moisture, dry it out prior to application either by hot air drying or laying it out in the sun.

Prime the concrete and/or other substrates as per the Chemind's roofing system recommendation and apply the first layer of the CMFIX 100. Press the **FLEXJOINT EP** strip in to the CMFIX 100 with hard roller or a blunt putty knife. **FLEXJOINT EP** membrane shall be protected prior to the application of hot-asphaltic materials in road construction.



Overlaps Seaming

With pre-cut rools, overlaps seaming are limited to the connection with the special detail pieces.

Those laps are seamed with a Flexjoint vulcanisation machine especially developed for the Flexjoint expansion joint membrane overlaps vulcanisation, those automated machines do not have room for human mistake.



FLEXJOINT EP Covering

Ensure that the **FLEXJOINT EP** is fully embedded either by laying the second layer of a 2 or 3 - ply system over it or by covering the installed **FLEXJOINT EP** with strepping plies at least 33cm wide.



Mechanical Protection

According to the project condition **FLEXJOINT EP** can be protected with an adapted cover, contact **Chemind** for assistance and design.

Note:

FLEXJOINT EP Membranes are manufactured in Switzerland.

Legal Notes:
'Statements made in this bulletin are for the assistance of our customers. They are based on our experience and judgment but must not be regarded as amounting to a legal warranty or as involving any liability on our part. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of this product must test the product's suitability for the intended application and purpose. CHEMIND reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. Users may always refer to the most recent issue of our Product Data Sheet for the products concerned, copies of which will be supplied upon request.'

Made In Malaysia

SCOPE OF REGISTRATION AND STANDARDS

Manufacture of Waterproofing materials. Compliance with ASTM technical standards and AS 3740 - 2004 Australia Standard. SIRIM certification is available for selected products upon request, subject to applicable testing and certification requirements.

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