

# Expansion Joints

ProEXP and FlamLINE

## Challenge

Components on buildings are constantly exposed to loads such as temperature fluctuations, earthquakes or other physical conditions. These have an effect on the volume and the characteristics of the materials used, as well as on the construction materials, and can cause signs of wear or cracking with disastrous consequences. Choosing the right sealing system is therefore of the utmost importance.

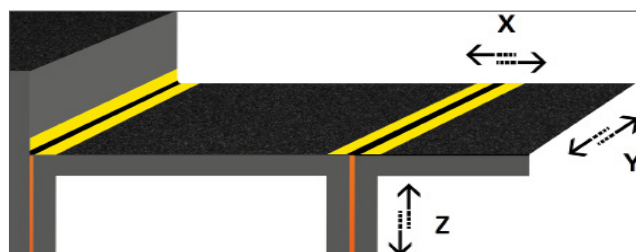
## Solution

A joint tape system pre-assembled at the factory for quick and safe installation. The vulcanisation of all shaped parts guarantees a homogeneous joint tape system without weak points.

The centre is formed by the highly elastic expansion zone in the middle of the tape system which is positioned over the joint. The bonding flanges reinforced with a truss, ensure a friction-locked connection with the sealing system. This clearly separates the functions "movement absorption" and "integration into the sealing system". There are different product versions available depending on the 3-dimensional joint movement to be expected.

## Advantages of Expansion Joints

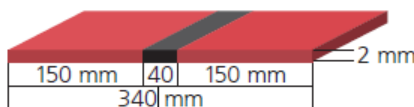
- Tapes and moulded parts are supplied as ready-made systems
- Cost-effective installation thanks to prefabricated, precisely fitting expansion joint tapes
- Follow any joint course without any problems
- Flush installation without loops and beads
- No complex substructures thanks to "sandwich installation"
- Very high resistance to building vibrations (e.g. during earthquakes)
- Force-fit joints with bitumen sheeting, epoxy resin adhesive and liquid plastic
- Construction vulcanisation possible
- Special metal connectors for connections to sheet metal work



Movement pattern for 3-dimensional joint movement

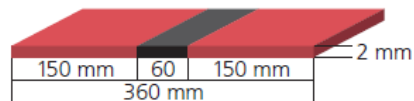
## Product Versions

### ProEXP 20

	X max. ± 20mm
	Y max. ± 20mm
	Z max. ± 20mm
	V <sub>r</sub> = 34mm

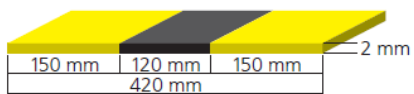
Dimensions: 150 mm, 40 mm, 150 mm, 340 mm, 2 mm

### ProEXP 40

	X max. ± 40mm
	Y max. ± 40mm
	Z max. ± 40mm
	V <sub>r</sub> = 69mm

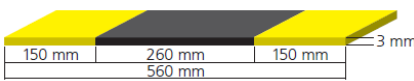
Dimensions: 150 mm, 60 mm, 150 mm, 360 mm, 2 mm

### FlamLINE 100

	X max. ± 100mm
	Y max. ± 100mm
	Z max. ± 100mm
	V <sub>r</sub> = 173mm

Dimensions: 150 mm, 120 mm, 150 mm, 420 mm, 2 mm

### FlamLINE 240

	X max. ± 240mm
	Y max. ± 240mm
	Z max. ± 240mm
	V <sub>r</sub> = 415mm

Dimensions: 150 mm, 260 mm, 150 mm, 560 mm, 3 mm

X Lateral movement / Y Longitudinal movement  
Z vertical movement / V<sub>r</sub> Maximum resulting displacement

## Installation

ProEXP and FlamLINE can be incorporated into bituminous systems, including hot melt. Depending on the installation scenario, ProEXP and FlamLINE can also be applied with epoxy resin adhesive.



Simple sandwich installation between two geomembranes