

Polymer Products Impex (Private) Limited



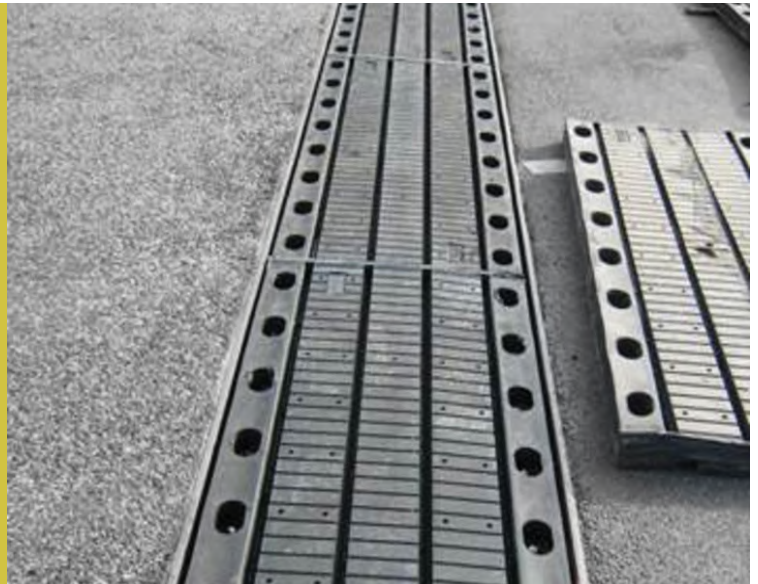
PPI – Elastomeric expansion joints



PPIFlex – Expansion joints

Bridges are subjected to movements and rotation caused by traffic, thermal expansions, earthquakes, shrinkage, prestressing, creep, etc. Bridge construction requires carefully designed and manufactured bearings, anti-seismic devices, shock absorbers and expansion joints to ensure that such forces are properly dealt with throughout the life of the structure.

Depending on the deck, the general bridge design, and the expected movements both in longitudinal and transversal direction, different types of expansion joints are available.



Specific features

Complete watertightness ensured by total continuity of the elastomer on the elements and the positioning of a high quality adhesive seal where the elements meet

The elastomer contact enables absorption of wheel impact and road surface irregularities, thereby providing an excellent level of user comfort

Upper surface has anti-skid grooves for optimum user safety
Very effectively accommodates transverse, vertical and rotational movements of the main structure

Steel inserts entirely elastomer coated, fully protected against corrosion and chemical attack (oil, grease, hydrocarbons and de-icing salts)

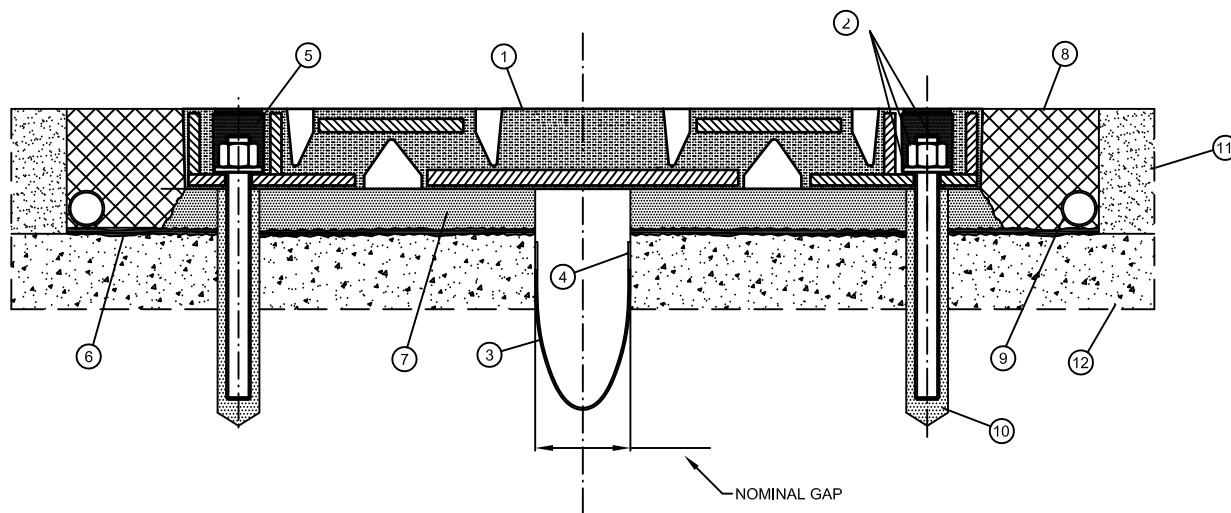
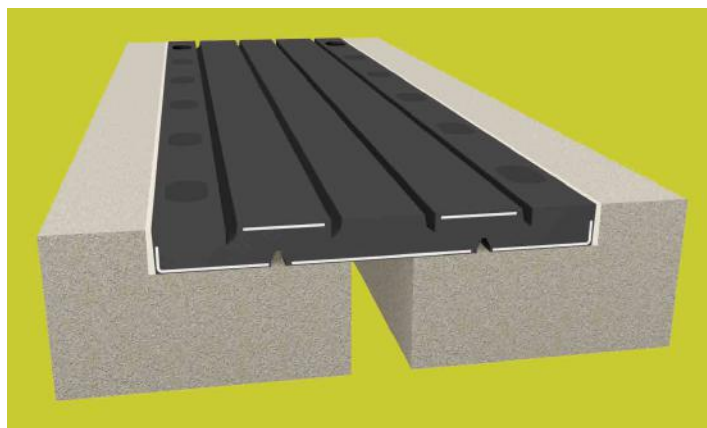
Simple installation, can be installed directly without recesses in the main structure



PPIFlex -Technical data sheet

Design

PPIFlex is the original-reinforced elastomeric molded rubber expansion joint system. All sections feature tongue and groove fittings for tight end-to-end mating across decks and at curbs and are steel reinforced. It can be installed in new decks, or in older structures on rehabilitation projects. All models adapt readily to skew angles. Properly installed, the PPIFlex system will accommodate anticipated thermal movements reject debris and create a level, smooth-riding, wear-resistant surface.



- 1 Expansion joint
- 2 Anchor Bars + washer + nut
- 3 Waterproof strip
- 4 Epoxy bonding system
- 5 Bolt hole sealer
- 6 Epoxy primer
- 7 Bedding Mortar
- 8 Transition strip
- 9 Drain pipe
- 10 Anchor bar grouting
- 11 Asphalt
- 12 Concrete

The quality and durability of these products are ensured by:

- >> Our team of skilled engineers to conceptualise and design the most appropriate engineering solutions
- >> Qualified professionals trained and continually updated in quality production techniques
- >> Virgin raw materials that are quality assessed in our on-site testing laboratory
- >> ISO 9001:2015 quality standard accreditation
- >> Strict quality control processes

Advantages PPIFlex expansion joints

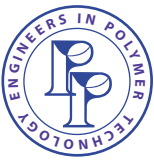
WATERPROOF: PPIFlex joints are entirely waterproof.

EASE OF ASSEMBLY: PPIFlex joints are extremely easy to fit. The joint's elements are connected with a male female coupling and secured to the structure with suitable anchor bolts.

CORROSION RESISTANCE: The steel structure is thoroughly embedded in the rubber, meaning it is protected from the atmospheric agents.

LONG SERVICE LIFE: the special anti-abrasive rubber used to manufacture PPI expansion joints has been designed to withstand the action of oil, grease, petrol and ageing due to constant exposure to sunlight and changes in temperature.

INTERCHANGEABLE: the PPIFlex is a particularly suitable choice for replacing existing joints.



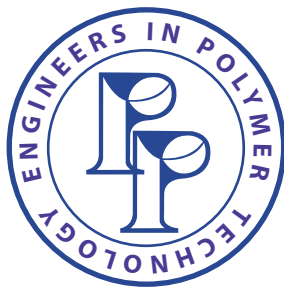
PPIFlex -Technical data sheet

Physical Properties of Rubber for the Expansion Joints

Elastomer Property	Test Method	Value
Hardness (Shore A)	ASTM D2240	60±5
Tensile strength (MPa)	ASTM D412	≥ 17
Elongation at break (%)	ASTM D412	≥ 400
Peel strength of rubber bonded to steel plate (KN/m)	ASTM D429, B	≥ 7
Compression set 22 hours at 70°C (Max, %)	ASTM D395	≤ 20
Ozone resistance:100pphm in air,20% of elongation,38°C x 70h	ASTM D1149	No cracks
Heat Resistance 70 hours at 70°C	ASTM D 573	
Change in Hardness max, points	ASTM D 412	±15
Changing tensile strength max, %	ASTM D 412	±15
Changing in Ultimate elongation max, %	ASTM D 412	-40

Parameters of Expansion Joints Installation

Model	Movement accommodation (Total) mm	Module Depth mm	Module Width mm	Module Length mm	Module Weight Kg
PPIFlex 50	50	40	274	1000	26
PPIFlex 65	65	46	356	1000	38
PPIFlex 80	80	52	432	1000	48
PPIFlex 100	102	54	550	1000	75
PPIFlex 165	165	75	724	1000	136
PPIFlex 230	230	93	890	1000	188



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