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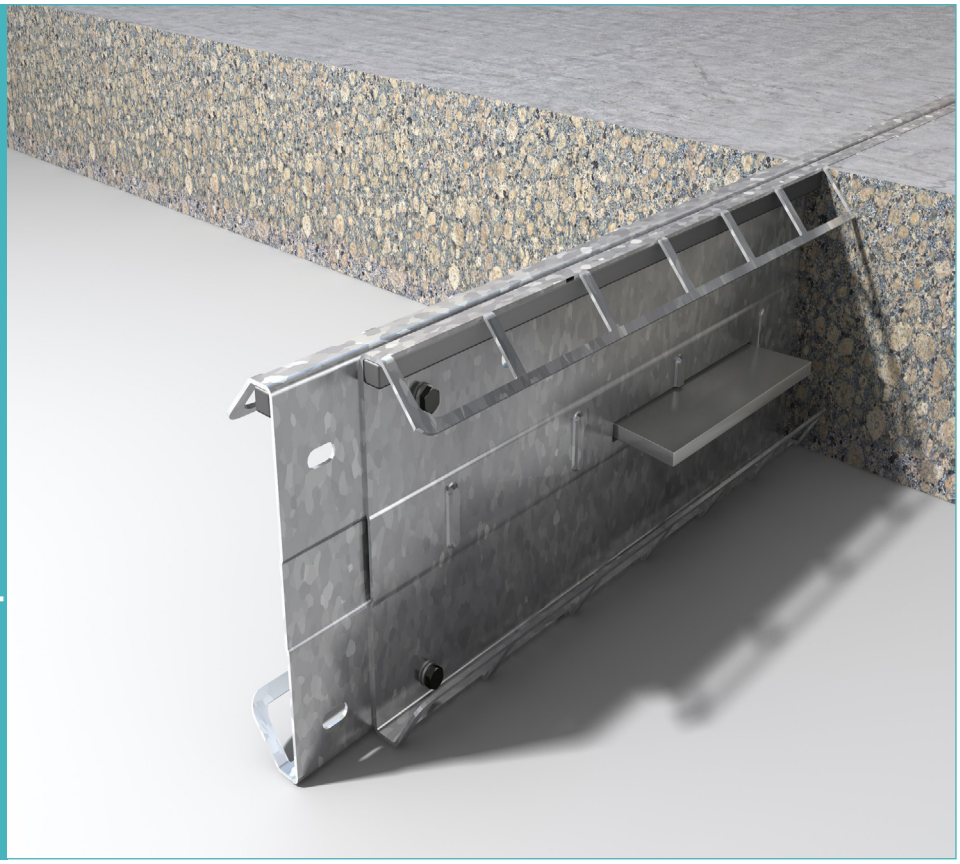
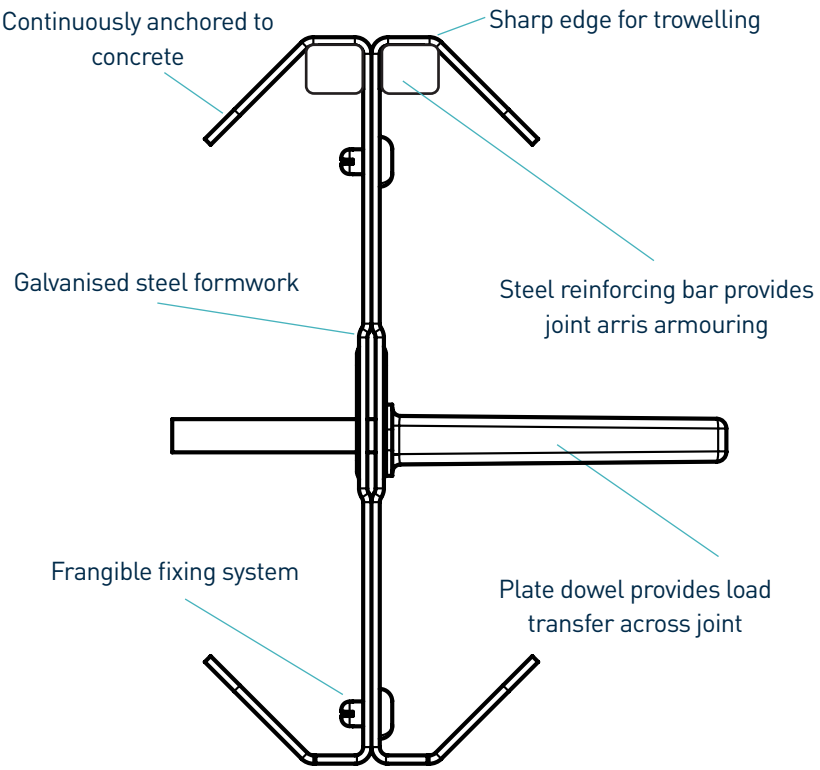
Permaban Eclipse®

Specification Sheet
Issue 3.6
17/04/2020





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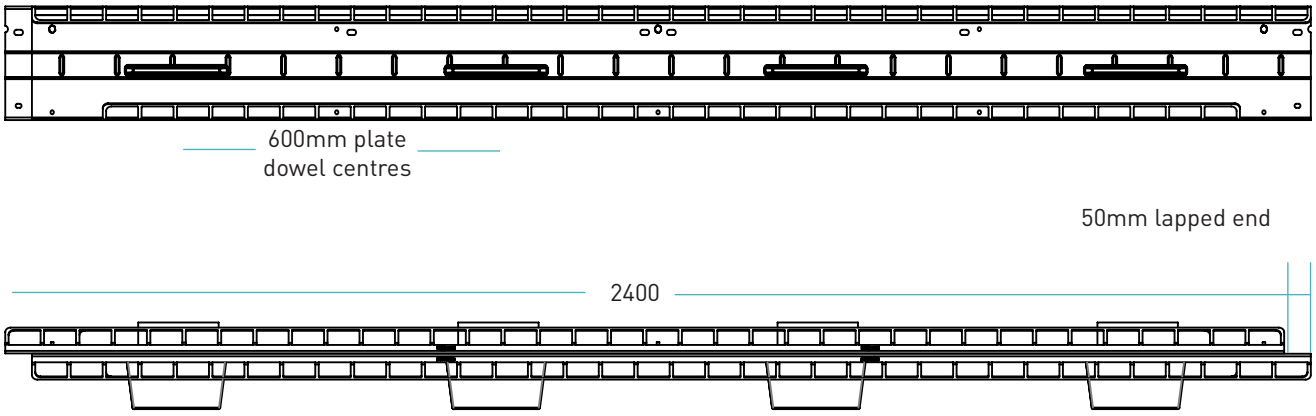
manufacturing tolerances

Length	±2.0mm	**Height**	±1mm	**Straightness**	±0.5mm/600mm

dimensions of Permaban Eclipse®



Dimensions in mm

dimensions and weight of Permaban Eclipse®

Nominal Slab Depth (mm)	Joint Height, h (mm)	Dowel Size (mm)	Dowel Centres (mm)	Length (mm)	Single Joint Weight (kg)	Number Per Bundle	Bundle Weight (kg)
150	130	151 x 120 x 8	600	2400	18.305	75	1493 kg
175	150				19.366	65	1379 kg
200	175				22.124	52	1271 kg
225	200				22.7	52	1300.4 kg

Typical height and length values shown only. Weight values shown are based on Permaban eclipse® including TD6 dowels and are approximate.

materials

Component	Material
Joint arris armouring	EN 10346: 2015 Dx514+Z
Plate dowel	EN 10025-2: 2004 S275JR
Plate dowel sleeve	HDPP

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theoretical calculated ultimate loads at failure of dowel or concrete

(For typical slabs, 40N/mm2 concrete and 20mm joint opening)

		Unreinforced Slab	
Slab Depth (mm)	Dowel Type	Bending (kN/m)	Bursting (kN/m)
150	TD6	31.2	53.4
	TD8	31.2	87.2
	TD10	31.2	124.7
175	TD6	40.0	53.4
	TD8	40.0	87.2
	TD10	40.0	124.7
200	TD6	49.9	53.4
	TD8	49.9	87.2
	TD10	49.9	124.7
225	TD6	60.7	53.4
	TD8	60.7	87.2
	TD10	60.7	124.7
250	TD6	72.4	53.4
	TD8	72.4	87.2
	TD10	72.4	124.7
275	TD6	85.6	53.4
	TD8	85.6	87.2
	TD10	85.6	124.7
300	TD6	86.9	53.4
	TD8	86.9	87.2
	TD10	86.9	124.7

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Ultimate load (kN/m)

This table shows the load at failure in bursting (failure of the concrete) and bending (failure of the dowel) for a joint opening of 20mm - larger joint openings can be accommodated. The ultimate load has been calculated in accordance with TR34 4th Edition. Dowel position taken at mid depth of slab. For more detailed analysis please contact RCR Flooring Products Ltd.

*All design calcultions should be verified by a suitably qualified structural engineer

compatible dowel systems