PaveX™ Expanda™ HD

Residential Pavements

Technical Data Sheet

April 2020

Item Code: PX150HDSET

Product Description

PaveX™ Expanda™ HD is a core component of the broader PaveX™ Residential Pavement eco-system. Designed specifically for use in heavy duty residential pavement applications including service vehicle cross-overs, driveways, shared bikeways and urban streetscapes. PaveX™ Expanda™ HD is a lightweight, modular expansion joint system that is quick & easy to install.

Designed for use with 6mm Danley™ Diamond™ Galvanised Dowels & Sleeves at 450mm centres, PaveX™ Expanda™ HD provides high capacity load transfer between pavement sections, to the requirements of AS 3727.1:2016 Residential Pavements. The unique design of the uPVC extruded PaveX™ Expanda™ HD 150mm sacrificial formwork profile provides up to 10mm of thermal expansion of concrete and is job site tough.

PaveX™ Expanda™ HD 150mm is supplied with pre-cut slots designed specifically for 6mm Danley™ Diamond™ Dowels.

Specification Benefits

Councils/Specifiers:

- Complies with the requirements of AS 3727.1:2016 Residential Pavements.
- Technical and installation support tools are available.

Contractors:

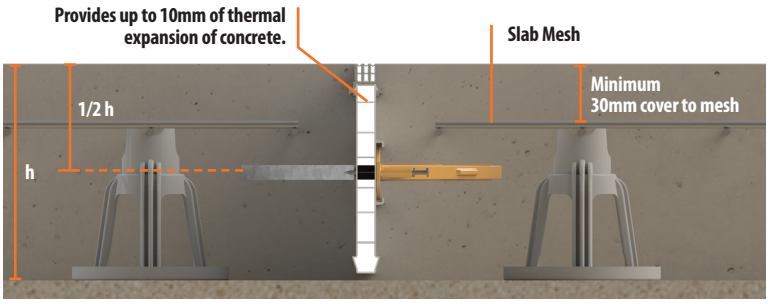
- Intuitive design – easy to use.
- Self-supporting design.
- PX150HDSET supplied to site in a pack configuration. Danley™ 6mm Diamond™ Dowels Trade Packs ordered separately.
- PX150HDSET includes components for 15 lineal metres of PaveX™ joint.
- Pour-through capability.

Applications & Environments

- Footpaths
- Bicycle Paths
- Driveways
- Service Vehicle Cross-Overs

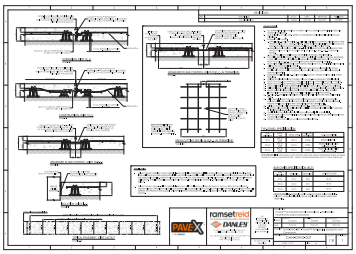
AS 3727.1:2016 Expansion Joint Detail

- Load bearing expansion joint capping prevents concrete spalling.
- Dowel placed centrally. ½ the slab thickness (h). Dowel limits differential deflection, provides for load transfer and thermal expansion of concrete.
- Mesh to terminate at a minimum of 40mm from the Construction Joint.
- Compressible PaveX™ Expanda™ profiles provide up to 10mm of thermal expansion of concrete.



Specifying PaveX™ Expanda™ HD For Expansion Joints

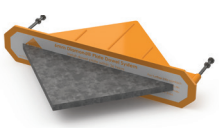
DANLEY™ PAVEX™ EXPANDA™ HD uPVC, SACRIFICIAL FORMWORK JOINTING SYSTEM WITH FULL 10 mm EXPANSION CAPACITY. 6 mm DANLEY™ DIAMOND™ TAPERED DOWEL AND SLEEVE PROVIDING LOAD TRANSFER. KEYED-IN CAPPING TO PREVENT WATER INGRESS WITH REMOVABLE TOP SECTION FOR SUBSEQUENT SEALING. COMPLETE WITH ADJUSTABLE CAM-LOCK STAKE BRACKETS, DRIVE-N-TWIST STAKES, CLIP-ON FEET AND MULTI-PURPOSE JOINER PLATE. TO BE INSTALLED IN ACCORDANCE WITH AS 3727.1:2016 RESIDENTIAL PAVEMENTS. AVAILABLE IN 150 mm JOINT HEIGHT.



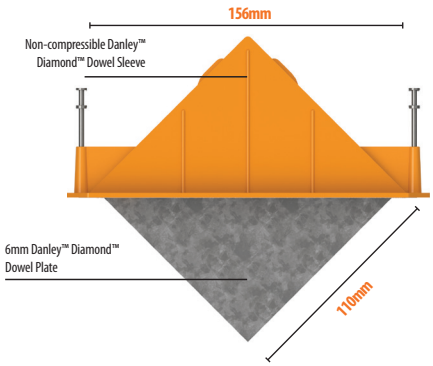
Scan the QR Codes to download a copy of the PaveX™ Specification Details in either DWG or PDF format.

DWG PDF

Technical Data



PaveX™ Expanda™ HD complies with the load requirements of AS 3727.1:2016 Residential Pavements



Range

- 6mm Diamond™ Dowel Sleeves are colour coded Orange.
- 6mm Diamond™ Dowel plates available in Galvanised and Grade 316 Stainless Steel.

6mm Diamond™ Dowel:

Available Dowel Finishes & Pack Sizes

Product Code	Dowel Thickness (mm)	Finish	Pack Size	Pack Weight (Kg)
DDSLPL06X110G	6	Galv.	25	15.6
DDSLPL06X110S	6	316 SS.	1*	0.7

*Stainless Steel Diamond™ Dowel sold individually.

Packaging

Diamond™ Dowel Trade Pack: Designed for the rigours of onsite construction, the Danley™ Diamond ™ Dowel Trade Pack is a sturdy, durable and easy to carry carton that is work site tough. The 6mm Diamond™ Dowel Trade Pack (pictured) contains 25 units of Danley™ Diamond ™ Dowels and Sleeves. Each sleeve is fitted with two doubled-headed steel nails.

Local Supply

At ramsetreid, we pride ourselves in being a local manufacturer and supplier of concrete construction solutions throughout Australia and New Zealand.

Material Technical Data Diamond™ Dowel Plates

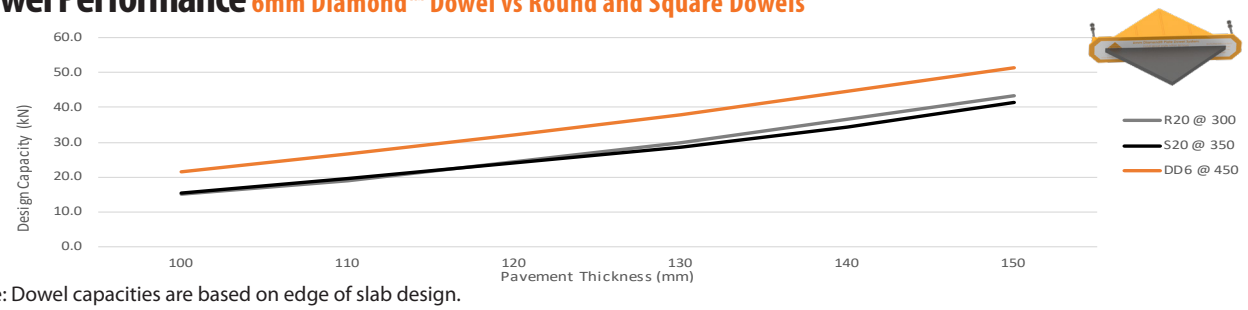
Component	Dimension (mm)	Material Type	Material Standard		Yield Stress (MPa)	Tensile Strength (MPa)
			Black	Galv		
6mm Plate	6 x 100 x 100	Steel	AS/NZS 3679.1:2016	AS/NZS 3679.1:2016	325	450
				AS/NZS 4680:2006		
		Stainless Steel	ASTM A240 Grade 316		205	515

Design Capacities Diamond™ Dowel

Pavement Thickness	Concrete Strength AS 3727.1:2016	Vehicle Load From AS 3727.1:2016	PaveX™ Dowel & Spacing	Estimated Wheel Load kN	Load On Critical Dowel kN	PaveX™ Dowel Design Capacity kN	Load Safety Factor
150mm	**32MPa**	10 Tonne Commercial	Diamond™ 6mm @ 450mm	30	9.5	16.3	1.7

Pavement Thickness	Concrete Strength AS 3727.1:2016	Round Dowel as AS 3727.1:2016	Load On Critical Dowel kN	Round Steel Dowel Design Capacity kN	Load Safety Factor	PaveX™ Dowel Design Capacity kN
150mm	**32MPa**	R20 at 300mm Spacing	7.6	10.6	1.4	16.3

Dowel Performance 6mm Diamond™ Dowel vs Round and Square Dowels



Note: Dowel capacities are based on edge of slab design.