

# Danley™ PD3™ with RynoBar™

## Technical Data Sheet

July 15th 2019

### Product Description

The PD3™ Tapered and Sleeveless Plate Dowel Cradles which provides the world's best performance in limiting joint deflection is now available with RynoBar™

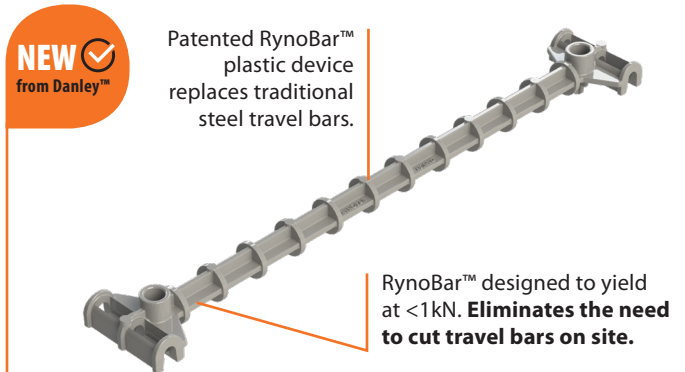
**The RynoBar™ is a patented Travel Bar, or sacrificial retention system pre-fitted to all Danley™ PD3™ Plate Dowel Cradles.**

- Traditionally, a series of deformed bars are tack-welded to keep cradles intact whilst in transit to site.
- Leading Engineers and Contractors suspect that un-cut steel travel bars are the significant factor in flooring failure resulting from restraint (parallel cracking).
- The Danley™ RynoBar™ is designed to yield in early shrinkage concrete, eliminating the need to cut travel bars before concrete placement.

### Advantages

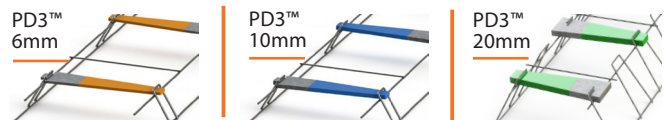
**The RynoBar™ is a patented, plastic Travel Bar designed with specific yield points in early concrete shrinkage, which eliminates the need to cut travel bars.**

- **Improved Safety:** Eliminates the sharp edges on traditional steel travel bars.
- **Faster Set & Installation:** Saves time, effort and money on site! Say goodbye to cutting traditional steel travel bars.
- **Quality Assurance:** RynoBar™ is engineered to accurately yield at the saw cut joint.
- **Durability:** Designed to be tough when it needs to be! RynoBar™ will get your PD3™ cradles on site in one piece.
- **Quality Design:** The RynoBar™ is proudly designed and manufactured in Australia!



### PD3™ Compatibility

**The full range of Danley™ PD3™ Plate Dowel Cradles are delivered to site, fitted with RynoBar™ travel bars.**



## PD3™ System Trade Benefits

#### Engineering Benefits:

- Provides highest performance in controlling joint deflection.
- Compliance with ACI 360R-10, design recommendations, limits differential deflection to <0.25mm.
- The RynoBar™ is designed to yield at <1kN eliminating the risk of restraint.
- Galvanised finish to AS/NZS 4680.
- Accuracy of dowel placement ensures the most effective load transfer performance.

#### Asset Protection Benefits:

- Reduces the risk of spalling damage to the concrete at the joints.
- Reduces maintenance & downtime costs.
- Provides a smoother surface at the joints.

#### Concreter Benefits:

- Speed and accuracy of dowel placement.
- Lowest placement cost. RynoBar™ eliminates the need to cut travel bars.
- Pour through capability.
- Greater stakeholder satisfaction.
- Wider sweet spot for saw cut placement provides greater tolerance for accuracy.

AUS: 1300 326 539 | NZ: 0800 88 22 55 | E: sales@danley.com.au | W: www.danley.com.au

## Product Specifications

### Product Performance Data:

| Slab Thickness (mm) | PD3™ with RynoBar™ Item Code | Single Dowel Design Capacity (kN) | Single Wheel Design Load (kN) (mid panel joint) | Single Wheel Design Load (kN) (edge loading) |
|---------------------|------------------------------|-----------------------------------|---|--|
| 125                 | PD306450125                  | 10.3                              | 55  | 30   |
| 150                 | PD306450150                  | 14.3                              | 82  | 45   |
| 175                 | PD306450175                  | 18.8                              | 112   | 62   |
| 200                 | PD306450200                  | 23.9                              | 154   | 84   |
| 150                 | PD310450150                  | 14.3                              | 82  | 45   |
| 175                 | PD310450175                  | 18.8                              | 112   | 62   |
| 200                 | PD310450200                  | 23.9                              | 154   | 84   |
| 250                 | PD320300250                  | 40.2                              | 392   | 215  |
| 300                 | PD320300300                  | 55.6                              | 605   | 333  |
| 360                 | PD320400360                  | 77.3                              | 747   | 410  |
| 425                 | PD320400425                  | 99.9                              | 1062  | 584  |

### Concrete Compressive Strength Effect:

| Strength (MPa): | 30 | 32   | 35   | 40   | 45   |
|-----------------|----|------|------|------|------|
| Factor:         | 1  | 1.03 | 1.08 | 1.15 | 1.22 |

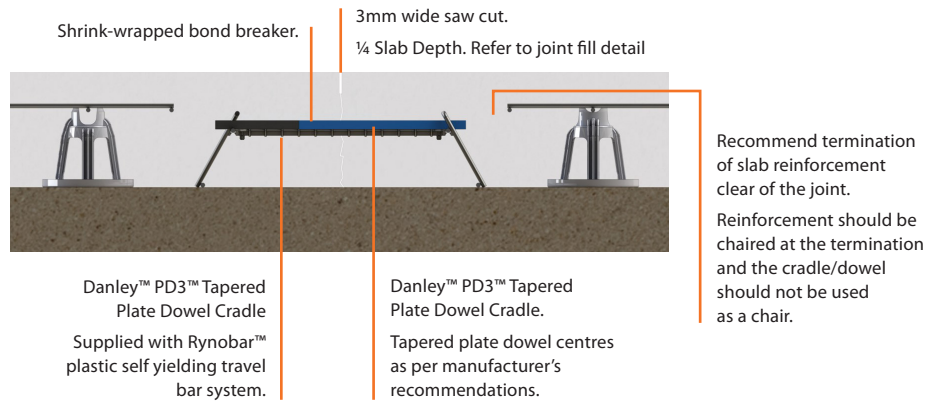
### Manufacturing Tolerances :

| Overall Length: | Overall Height: | Dowel Centres: |
|-----------------|-----------------|----------------|
| ±10mm           | ±5mm            | ±5mm           |

## How to specify the PD3™

Danley™ PD3™ sleeveless tapered plate dowel cradle system fitted with the RynoBar™ plastic self-yielding travel bars is for use in sawcut contractions joints, providing bilateral movement and limiting differential deflection under load to no more than 0.25mm. Complies with ACI 360R-10.

**Available in 6mm, 10mm and 20mm.**



### Material Technical Data:

| Component       | Dimension (mm) | Material Type    | Material Standards | Steel Grade Equivalent | Yield Stress | Tensile Strength (MPa) | Standards Compliance |
|-----------------|----------------|------------------|--------------------|------------------------|--------------|------------------------|----------------------|
| 6mm PD3™ Dowel  | 6 x 300        | Cold Drawn Steel | Q345               | ≥Grade 300             | 345 Mpa      | 550                    | AS/NZS 3679.1        |
| 10mm PD3™ Dowel | 10 x 300       | Cold Drawn Steel | Q345               | ≥Grade 300             | 345 MPa      | 550                    | AS/NZS 3679.1        |
| 20mm PD3™ Dowel | 20 x 300       | Cold Drawn Steel | Q445               | ≥Grade 300             | 345 MPa      | 550                    | AS/NZS 3679.1        |
| Wire Cage       | Ø5.4           | Hard Drawn Wire  | AS/NZS 4671        | Grade 500L             | 500 Mpa      | 650                    | AS/NZS 4671          |
| RynoBar™        | Ø12.5          | Polypropylene    | -                  | -                      | <1kN         | -                      | -                    |
| Galvanising     | 85µm           | Hot Dipped Galv  | AS/NZS 4680        | -                      | -            | -                      | AS/NZS 4680          |

AUS: 1300 326 539 | NZ: 0800 88 22 55 | E: sales@danley.com.au | W: www.danley.com.au