

## Polybar P-Barrier Rail 200 – Technical Product Datasheet

Designed to protect equipment & buildings safely by absorbing the force impact caused by vehicles. Its revolutionary polymer technology coupled with its unique single anchoring system results in a high-performance impact protection system relied upon by global companies.

## Product Description

The P-Barrier Rail 200 is a superior high-performance impact protection system designed to deflect upon impact providing safe protection for a variety of applications including equipment, buildings and racking.

## Product Dimensions

Dimensions				Drilling		
Diameter (mm)	Length (mm)	No. Bases	Height (mm)	Rod ø (mm)	Hole ø (mm)	Depth (mm)
70 / 70	1500	3	1000	16	38	150
70 / 70	2000	3	1000	16	38	150
100 / 70	500	2	1000	20	48	150
100 / 70	1000	2	1000	20	48	150
100 / 70	1500	2	1000	20	48	150
100 / 70	2000	3	1000	20	48	150
120 / 70	500	2	500	20	48	150
120 / 70	1000	2	500	20	48	150
120 / 70	1500	3	500	20	48	150
120 / 70	2000	3	500	20	48 <td 150	
120 / 70	500	2	800	20	48	150
120 / 70	1000	2	800	20	48	150
120 / 70	1500	3	800	20	48	150
120 / 70	2000	3	800	20	48	150
120 / 70	500	2	1000	20	48	150
120 / 70	1000	2	1000	20	48	150
120 / 70	1500	3	1000	20	48	150
120 / 70	2000	3	1000	20	48	150

## Features & Benefits



High Resistance to Impact



Hygienic & Easy to Clean



Suitable for Food Environments



Hidden Fixing / Zero Exposed Steel



Minimum Maintenance



100% Recyclable

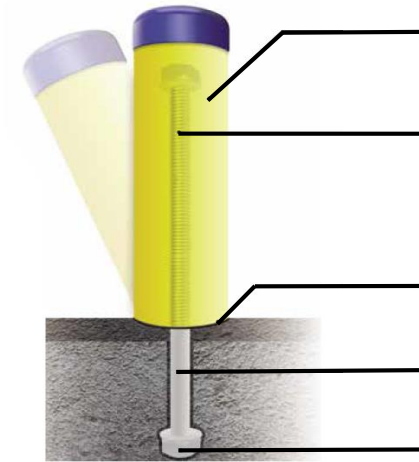


Quick Repair at Minimum Cost



Protected against UV Rays

## Material Properties (demonstrated on P-Bollard)



**High Performance Synthetic Polymer** – Offers superior protection that requires minimum maintenance.

**Threaded Rod**- Robust steel rod anchoring system with superior 'pull-out' performance, designed for fast installation and to absorb impacts while minimising concrete damage.

**Neoprene Seal** – Designed to prevent liquid ingress and zero exposed steel.

**PVC Sleeve** – Eliminates grout contacting the threaded rod to enable easy rod replacement

**Anchor nut** - guarantees durability of fixing, offering maximum resistance and easy rod replacement.



## Material Properties

Test	Results
Density (g/cm <sup>3</sup> ) - ISO 1183	0.95
Yield Stress (N/mm <sup>2</sup> ) - DIN EN ISO 527	28
Elongation Resistance (%) - DIN EN ISO 527	8
Elongation at Break (%)	300
Tensile E Modulus (MPa) - DIN EN ISO 527	850
Impact Strength (kJ/m <sup>2</sup> ) - DIN EN ISO 179	Without break
Notched Impact Strength (kJ/m <sup>2</sup> ) - DIN EN ISO 179	50
Ball Indentation Hardness (N/mm <sup>2</sup> ) - DIN EN ISO 2039-1	45
Shore Hardness (N/mm <sup>2</sup> ) - D ISO 868	66
Average Thermal Coefficient of Elongation (K <sup>-1</sup> ) - DIN 53752	1'8 . 10 <sup>-4</sup>
Thermal Conductivity (W/m.K) - DIN 52612	0.38
Dielectric Strength (kV/mm) - VDE 0303-21	44
Surface Resistance (Ohm) - DIN IEC 167	1014
Temperature Range (°C)	-100 to +80
Chemical Resistance (Acids, Alkalis and Solvents)	High
Physiologically Acceptable	Yes
Welding	Yes
Hot Forming	Possible

## Testing

Dynamic Impact Test	Tested Impact Energy @ 90° (Joules)
P-Barrier Rail 200 120mm*	36,425
P-Barrier Rail 200 100mm*	19,850
P-Barrier Rail 200 70mm*	7,470

\* Tested on the P-Barrier (lower horizontal section of the P-Barrier Rail 200)

<p><b>36,425 Joules</b> is the equivalent of</p>  <p>9.4 tonnes</p>	<p>X</p> <p>10 Km/h (6 mph)</p>	<p>All dynamic testing has been certified by TUV nord. Please contact Polybar for further information.</p> 
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## Colours

Yellow	RAL 1021
Black	RAL 9004

Other colours are available subject to minimum order size. Please contact Polybar for further information.



## Shipping / Freight

Fully timber crated packs are available on projects requiring delivery by sea freight shipping. Offloading & installation (unless agreed otherwise) is the responsibility of the customer.

Polybar supplies internationally. Please contact Polybar for lead times to specific locations.

## Installation

Although not the exact product, installation principles are as follows:



Drill concrete to a specified diameter using a diamond core drill.



Vacuum debris and dust to ensure a clean surface.



Mix & pour grout resin into hole.



Insert protection system, leave to set and tighten top bolt.



Fix cap.



Assembly complete.

## Further Information:

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