



Polybar P-FLEX Column Protection – Technical Product Datasheet

Designed to protect structural steel/concrete columns in buildings 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-FLEX Column Protection is designed to protect structural steel/concrete columns in buildings by absorbing the force impact caused by vehicles.

Product Dimensions

Dimensions					Drilling	
Diameter (mm)	Length between posts (mm)	No. Bases	Height (mm)	Rod ø (mm)	Hole ø (mm)	Depth (mm)
170 / 70	By Design	4	1100	30	68	150

Features & Benefits



High Resistance to Impact



Hygienic & Easy to Clean



Suitable for Food Environments



Hidden Fixing / Zero Exposed Steel



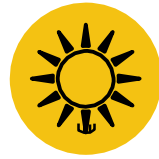
Minimum Maintenance



100% Recyclable

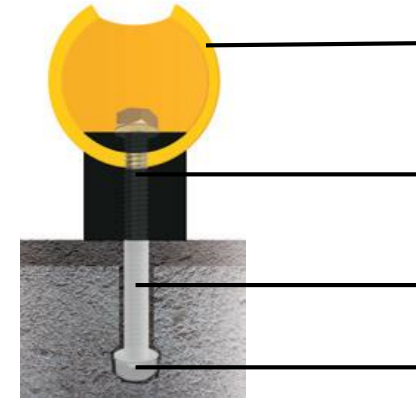


Quick Repair at Minimum Cost



Protected against UV Rays

Material Properties (demonstrated on P-FLEX Barrier)



High-Performance Flexible Synthetic Polymer featuring P-FLEX Technology

Robust steel rod anchoring system designed for fast installation, minimum maintenance and to absorb impacts without causing concrete damage.

PVC sleeve for easy rod replacement (removes mortar contact with threaded rod).

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



Material Properties

Test	Results
Density (g/cm ³) - ISO 1183	0.95
Yield Stress (N/mm ²) - 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 ²) - DIN EN ISO 179	Without break
Notched Impact Strength (kJ/m ²) - DIN EN ISO 179	50
Ball Indentation Hardness (N/mm ²) - DIN EN ISO 2039-1	45
Shore Hardness (N/mm ²) - D ISO 868	66
Average Thermal Coefficient of Elongation (K ⁻¹) - DIN 53752	1'8 . 10 ⁻⁴
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-FLEX Column Protection*	26,900

* Tested on the core used to anchor the vertical sections.

<p>26,900 Joules is the equivalent of</p>  <p>6.9 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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