

Typical Properties & Specification

Product Number	PBYSR
Material Type	Expanded Polypropylene
Part Format	Interlocking panel
Part Size, nominal net coverage	24.15 sq ft per panel (2.24 sq m)
Part Thickness, nominal	1.00 in (25 mm)
Part Length, nominal	73.5 in (1867 mm)
Part Width, nominal	49.0 in (1245 mm)
Part Weight, nominal	5.2 lbs per panel (2.36 kg)

Property (Shock Pad Only)	Typical Value – Nominal Density	Specification	
Tensile Strength ¹	92 psi	> 80 psi	ASTM D3574-08 Test E
Tensile Elongation ¹	41%	> 30%	ASTM D3574-08 Test E
Compression Strength ² @ 25% strain @ 50% strain	26 psi 38 psi	> 20 psi > 30 psi	ASTM 3575-08 Test D
Compression Set ³ 35 psi for 30 minutes – Set after 24 hrs	7.2%	< 10%	Brock Test Method
Coefficient of Linear Thermal Expansion ⁴ per 1° C change	0.083 mm/m	< 0.10 mm/m	ASTM D696
Thermal Conductivity (Lambda Value) ⁵	0.0377 W/mK	Information Only	EN 12667:2001 / ISO 7345
Thermal Resistance (R Value) ⁵	0.64 Km ² /W	Information Only	EN 12667:2001 / ISO 7345
Water Absorption ⁶ After 24 hrs immersion	~ 1%	≤ 1%	DIN 534 28
Water Permeability ⁷	720 in / hr	> 500 in / hr	ASTM 1551 Suffix-DIN 18-035, Part 6
* Lateral Transmissivity ⁸ Flow Rate @ .005 Gradient Flow Rate @ .0075 Gradient Flow Rate @ .01 Gradient	0.57 gpm/ft 0.74 gpm/ft 0.90 gpm/ft	0.50 gpm/ft - -	ASTM D4716-14
Head Injury Criterion 1,000 - Critical Fall Height ⁹	1.2 m	1.2 m	ASTM F3146-18, Procedure A
Gmax ⁹	79 g	< 90 g	ASTM F355-16 Missile A
Shock Absorption ⁹	70%	> 60%	ASTM F3189-17
Vertical Deformation ⁹	9.7mm	< 10mm	ASTM F3189-17 Advanced Artificial Athlete
Vertical Deformation ⁹	6.9mm	< 7mm	EN 14809:2005 Artificial Athlete
Resistance to Chemicals ¹⁰	1 / 2	≤ 2	JSP Method based on ASTM F925
Resistance to Acid and Alkaline Liquids ¹¹ % tensile strength loss - 100yr model	0% after 12 days	0% after 12 days	EN 14030:2010 ISO 12960:1998
Resistance to Oxidation (Accelerated Aging) ¹² % tensile strength loss - 100yr model	6% after 56 days @ 110°C	6% after 56 days @ 110°C	EN ISO 13438:2004
Microbiological Analysis bacteria resistance ¹³ fungi resistance ¹⁴	No growth No growth	No growth No growth	ASTM G22-76 ASTM G21-96
Environmental Standards Testing Cradle to Cradle ¹⁵ Heavy Metals ^{16 / 17} VOC's ^{16 / 17} SVOC's ^{16 / 17} California Title 22 ¹⁷ California Proposition 65 ¹⁸	Certified Compliant to EPA human health standards, surface water quality, groundwater quality Compliant Certified	Certified Compliant to EPA human health standards, surface water quality, groundwater quality Compliant Certified	Cradle to Cradle Products Innovation Institute EPA 6010B, 7470A, 7471A EPA 8260B EPA 8270C California Code of Regulations, Title 22, Division 4.5, Chapter 11 California Proposition 6/614

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The Brock PowerBase product group includes PowerBase PRO, PowerBase YSR, Performance Base F24, Performance Base F20

* Note that ASTM D4716 flow rate and hydraulic transmissivity values are not an indication of overall athletic field drainage performance.

¹⁻¹⁸ Test reports available upon request