

Typical Properties & Specification

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

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

<sup>1-18</sup> Test reports available upon request