POWERBASE YSR
BY BROCK

Typical Properties & Specification

Part Number	PBYSR
Material Type	Expanded Polypropylene (EPP)
Part Format	Interlocking panel
Part Size, nominal net coverage	24.15 sq. ft. per panel (2.24 sq. m)
Part Thickness, nominal	1.0 in (25.4 mm)
Part Length, nominal	73.5 in (1867 mm)
Part Width, nominal	49.0 in (1245 mm)
Part Weight, nominal	5.2 lb per panel (2.36 kg)

Property (Shock Pad Only)	**Typical Value**	**Specification**	**Test Method**
Tensile Strength[1]	128 psi	> 80 psi	ASTM D3575-20, Suffix T
Tensile Elongation[1]	23.5%	> 15 %	ASTM D3575-20, Suffix T
Compression Strength[1] @ 25% strain	39 psi	> 20 psi	ASTM D3575-20, Suffix D
Compression Set[1] 35 psi for 30 minutes – % set after 24 hr	6.1%	< 10%	Brock Test Method
Coefficient of Linear Thermal Expansion[1]	0.086 mm/m per °C	< 0.10 mm/m per °C	TSM5725G (modified)
Thermal Conductivity[2]	0.25 BTU·in/hr·ft^2·°F	Information Only	ASTM C518
Thermal Resistance (R-Value)[2]	3.596 hr·ft^2·°F/BTU	Information Only	ASTM C518
Water Absorption (24 h immersion, vol%)[2]	~1%	≤ 2%	DIN 53428
Water Permeability (Vertical Drainage)[1,3]	2215 in/hr	> 1500 in/hr	EN 12616
Lateral Flow (Horizontal Drainage)[1,3] Flow Rate @ 0.005 gradient (0.5% slope) Flow Rate @ 0.0075 gradient (0.75% slope) Flow Rate @ 0.01 gradient (1% slope)	 0.57 gpm/ft 0.74 gpm/ft 0.90 gpm/ft	 >0.50 gpm/ft - -	ASTM D4716
Critical Fall Height (HIC = 1000)[1] Pad only, no turf	0.90 m	> 0.85 m	ASTM F3146-18, Procedure A
Gmax[1]	92 g	< 100 g	ASTM F355 (Missile A)
Shock Absorption[1]	69%	> 60%	ASTM F3189-20 (AAA)
Vertical Deformation[1]	8.0 mm	< 10 mm	ASTM F3189-20 (AAA)
Resistance to Chemicals[2]	1/2	≤ 2	JSP Method based on ASTM F925
Resistance to Acid and Alkaline Liquids[2] Avg. % tensile strength loss – 100yr model	0% after 12 days	<10% after 12 days	EN 14030:2010
Resistance to Oxidation (Accel. Aging)[2] Avg. % tensile strength loss – 100yr model	6% after 56 days @ 110 °C	<10 % after 56 days @ 110 °C	EN ISO 13438:2004
Microbiological Analysis[2] bacteria resistance fungi resistance	 No Growth No Growth	 No Growth No Growth	 ASTM G22 ASTM G21
Environmental Standards Cradle to Cradle Certified® Heavy Metals[2] VOCs[2] SVOCs[2] California Title 22 California Proposition 65	 Certified Compliant with EPA human health standards, surface water and groundwater quality Compliant Certified (no listed mat'ls)	 Certified Compliant with EPA human health standards, surface water and groundwater quality Compliant Certified (no listed mat'ls)	 Cradle to Cradle Certified® Prod. Standard EPA 6010B, 7470A, 7471A EPA 8260B EPA 8270C CA Code of Regulations, Title 22, Division 4.5, Chapter 11 California Proposition 65

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[1] Test reports available upon request. Patented and Patents Pending.
[2] Data for EPP material of same or similar density.
[3] Note that ASTM D4716 & EN 12616 results for pad alone are not indicative of overall athletic field drainage performance.