

ShockWave 430

Specification Sheet

ShockWave 430 is a shock attenuation and synthetic aggregate technology designed for the use beneath synthetic turf used to achieve optimum safety, sports performance and drainage. Additionally, the technology delivers high fluid and air transmissivity and low thermal gradient between sub-grade and turf.

Material Properties	Unit	Values ¹
• Composition	Composite	Thermoset Elastomer, Polyolefin Composite
• Weight ²	lbs/ft ² (kg/m ²)	1.08(5.2)
• Density ²	lbs/ft ³ (kg/m ³)	29.9(479)
• Nominal Thickness	mils(mm)	430(11)
• Core Thickness	mils(mm)	150(3.8)
• Thermal and Humid Aging ³	%	<1%
• Water Absorption ⁴	lbs/ft ² (kg/m ²)	0.02(<0.06)

Material Properties	Unit	Values ¹
• Tensile Strength ⁵	lbs/ft(kN/m)	(MD)1,100 (18.1) (TD) 822 (12)
• Elongation at Break ⁵	%	(MD) 60 (TD) 101
• Compression Set ⁶	lbs/sf	1,000 5,000 10,000
	%(min)	(100%) (95%) (70%)
• Coefficient of Linear Thermal Expansion ¹⁴	in/ft	0.003

Hydraulic Properties	Unit	Values ¹
• Transmissivity ⁷	gpm/ft(m ² /sec)	145 (3 x 10 ⁻²)
• Permeability ⁸ (Perforated)	gal/min/sf	>40
• Infiltration Rate ⁹ (Perforated)	in/hr(mm/hr)	144 (3654)

Sports Performance Properties	Unit	Values ¹
• Impact Attenuation (Gmax ¹⁰)		80 - 100
• HIC ¹⁰		UPON REQUEST
• Advance Artificial Athletes (AAA) ¹¹		UPON REQUEST

Chemical Properties	Unit	Values ¹
• Polycyclic Aromatic Hydrocarbon ¹²		No detectible level
• Common Metals ¹³		No dispersion above limit

Dimensions and Delivery	Unit	Values ¹
• The product shall be delivered to the jobsite in roll form with each roll individually identified and nominally measuring 4 ft. in width 206 ft. in length.		
• Custom roll lengths available upon request.		

Notes:

- Unless indicated otherwise, values shown are typical values. Brief descriptions of test procedures are given in the following notes.
- Unit weight and density contribute as a measure to stabilize product during installation and resist wind lift.
- Response to thermal and humid aging tested in accordance with ASTM D2126-09.
- Water absorption tested in accordance with ASTM D3575-08, time of immersion 48 hours.
- Tensile strength determined in accordance with ASTM D4595 Modified using test specimens of 100mm (4 in) x 200mm (8 in) strips, initial grip separation of 100mm (4 in), and elongation at break calculated by grip separation. (MD = Machine Direction, TD = Transverse Direction)
- Enplast modified ASTM D3575 Compression set (15 min load set read at transducer)
- Transmissivity determined in accordance with ASTM D4716, under 5.8 kpa (120 psf) and hydraulic gradient 1%.
- Permeability ASTM 2434
- Infiltration rate EN 12616 Method A
- Gmax and HIC are measured on infilled synthetic turf in accordance with ASTM 0716 and will vary based upon turf pile height and infill type and ratios.
- Advanced Artificial Athlete (AAA) tested in on infilled synthetic turf in accordance with FIFA 01, 04a, 05a, 13. Result will vary based upon turf pile height and infill type.
- EPA 8270C SIM PAHs (Solid) tested by Eurofins Calscience.
- EPA 6010B-EPA 7471A tested by Curtis & Tompkins.
- ASTM D696 mod.

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