



# LAB SAMPLE TEST REPORT

AA • AAA • GMAX • HIC • PERMEABILITY • RESISTANCE TO CHEMICALS • WATER ABSORPTION



## LAB SAMPLE TEST REPORT

<b>Sample Reference</b>	SP14XL (14 mm SPXL)	
<b>Report Number</b>	1041	
<b>Report Status</b>	Final	
<b>Issue Date</b>	06/12/2019	
<b>Client Information</b>	Brock USA 3090 Sterling Circle, Boulder, CO 80301	
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<b>Checked By</b>	Kieran O'Donnell	

### Forward

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## INTRODUCTION

Sports Laboratories were commissioned to carry out lab testing on Brock SP14XL (14 mm SPXL) product samples provided by the manufacturer.

## 1. Test Methods

- Shock Absorption (2A) - EN 14808
- Vertical Deformation (2A) - EN 14809
- Shock Absorption (AAA) - ASTM F3189-17
- Vertical Deformation (AAA) - ASTM F3189-17
- Energy Restitution (AAA) - ASTM F3189-17
- Gmax - ASTM 1936-10
- HIC - ASTM F3146
- Water Permeability - ASTM F1551
- Resistance to Chemicals - ASTM F925
- Water Absorption - DIN 53428

## 2. Test Details

<b>Sample Reference</b>	SP14XL (14 mm SPXL)	<b>Ambient Air Temp (F)</b>	72
<b>Pad Thickness (mm)</b>	14	<b>Reference Temp (F)</b>	72
<b>Test Condition</b>	Dry	<b>Humidity (%)</b>	54

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## 3. Test Results

Characteristic	Test Method	Result		
Shock Absorption - 2A	EN 14808	62%		
Vertical Deformation - 2A	EN 14809	3.0 mm		
Shock Absorption - AAA	ASTM F3189-17	58%		
Vertical Deformation - AAA	ASTM F3189-17	6.5 mm		
Energy Restitution - AAA	ASTM F3189-17	33%		
Gmax	ASTM 1936-10	135		
HIC	ASTM F3146	0.61 meters		
Water Permeability	ASTM F1551	911 in/hr		
Resistance to Chemicals	ASTM F925	No Change		
Water Absorption	DIN 53428	1 Day	7 Days	28 Days
		3.31%	4.90%	6.07%

\*\*\*END OF REPORT\*\*\*

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