



B I O M E C H A N I C A

Test Results

Impact Attenuation of Brock Performance Base and Power Base Underlayments with Prestige Artificial Turf

Prepared for



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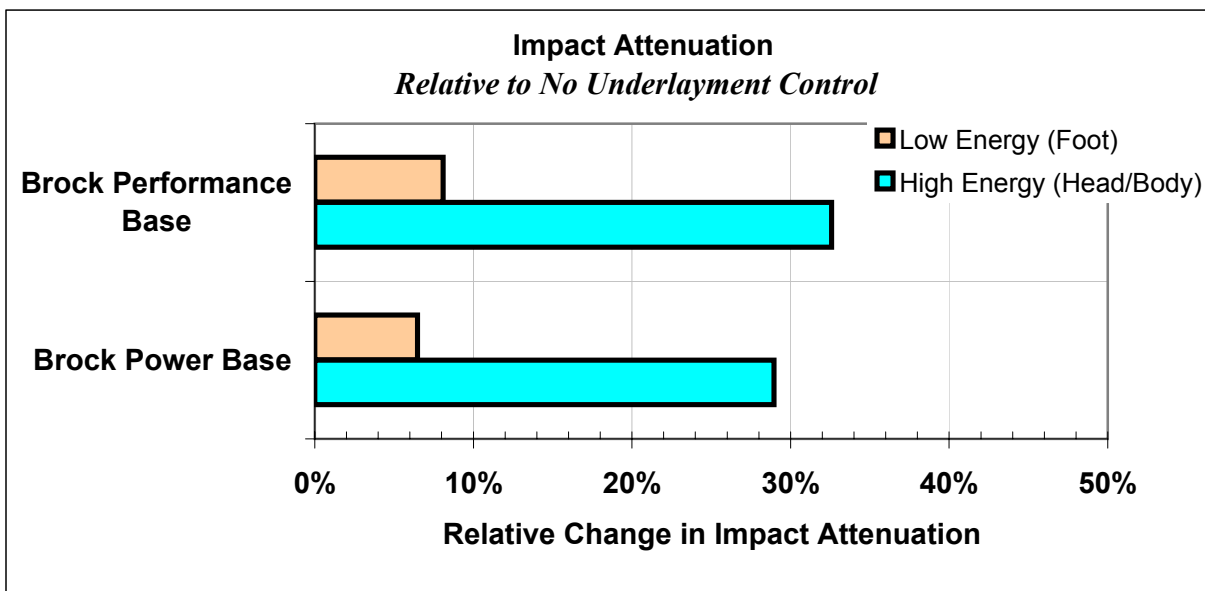
BioMechanica LLC

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Summary:

The purpose of these tests was to determine the differential effects of the FIELDturf Prestige monofilament artificial turf system with Brock Performance Base and Power Base underlayments on impact attenuation under low and high impact energy conditions.

- Under low impact energy conditions, representing those produced by the foot of a running athlete, Brock Performance Base and Brock Power Base reduced peak impact shock by an average of 8% and 6%, respectively, compared with surface without underlayment.
- Under high impact energy conditions, representing those produced by head and body impacts, the Brock Performance Base and Brock Power Base underlayments reduced peak impact shock by an average of 33% and 29%, respectively.



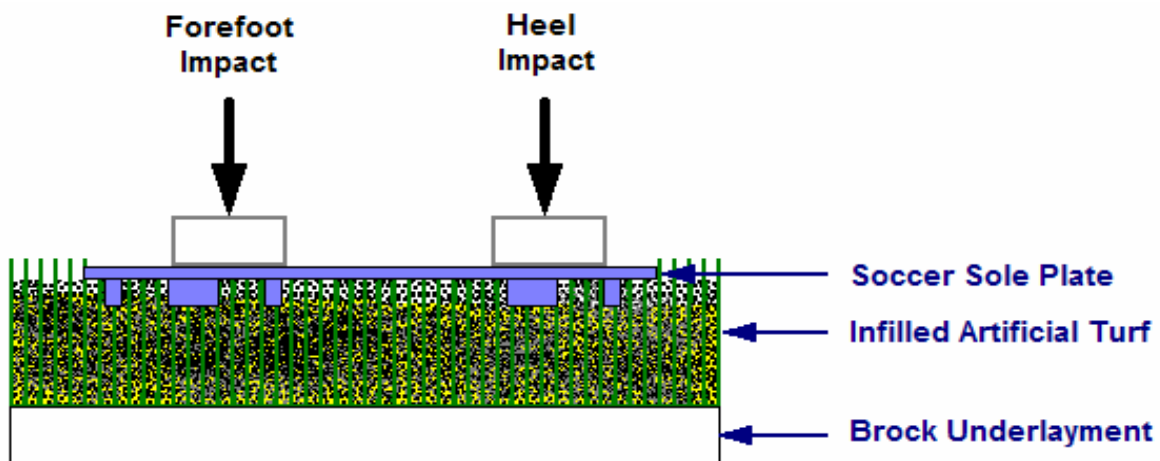
Test Conditions:

Artificial turf surfaces:

Prestige				
#	Base Layer		Turf Layer	
	Type	Thickness, mm	Type	Infill Depth, mm
A	-		Prestige	38
B	Brock Performance Base	23	Prestige	38
C	Brock Power Base	23	Prestige	38

Test Methods:

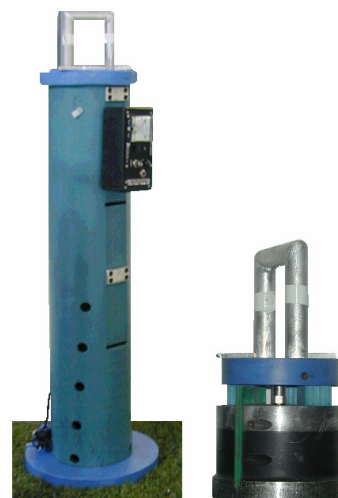
Footwear Impact



Surface

ASTM F355-A

Mass: 9.09 kg
 Drop height: 0.610 m
 Impact Energy: 54 Joules

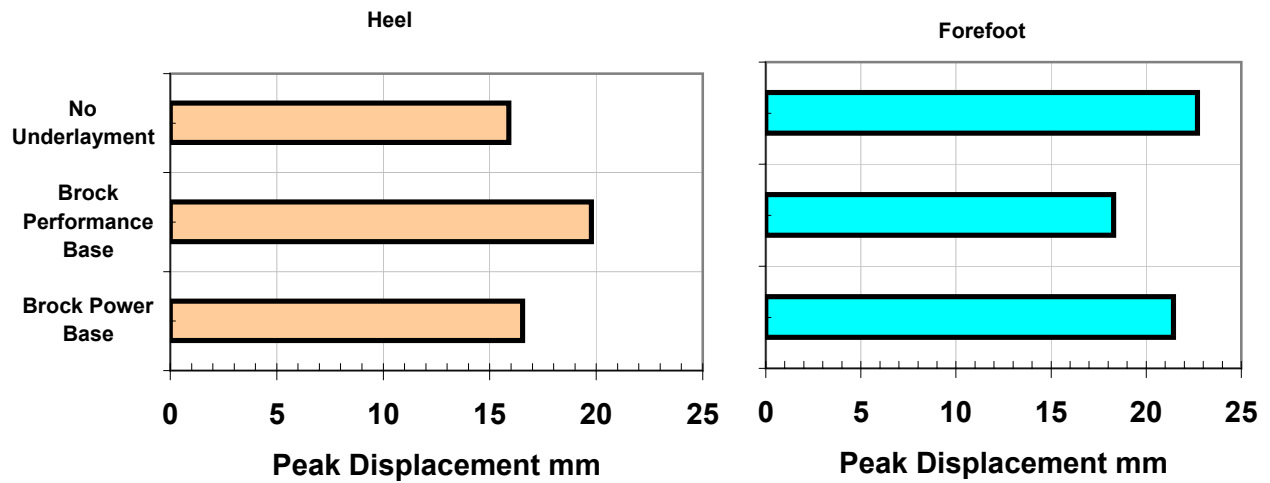
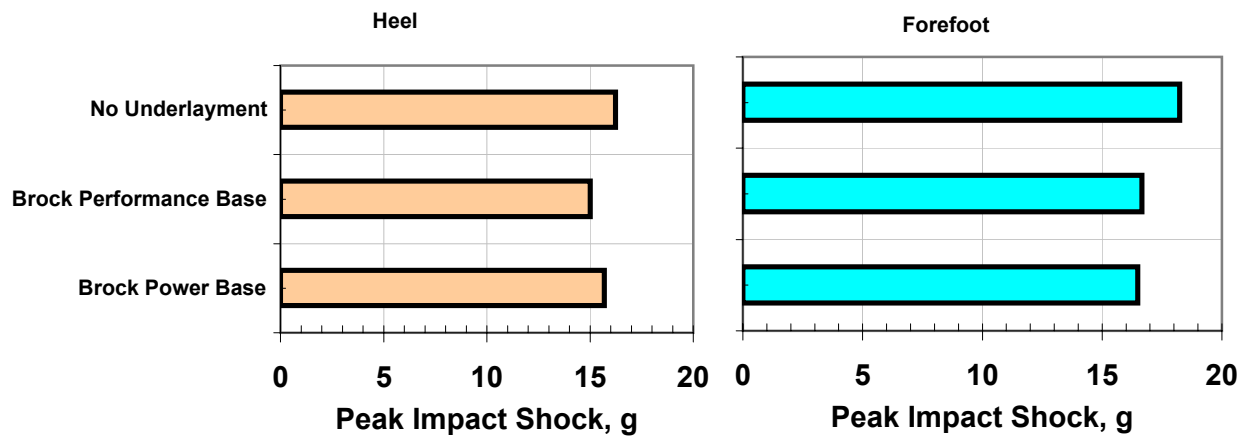


Test Results:

F1976 (Foot Impact)

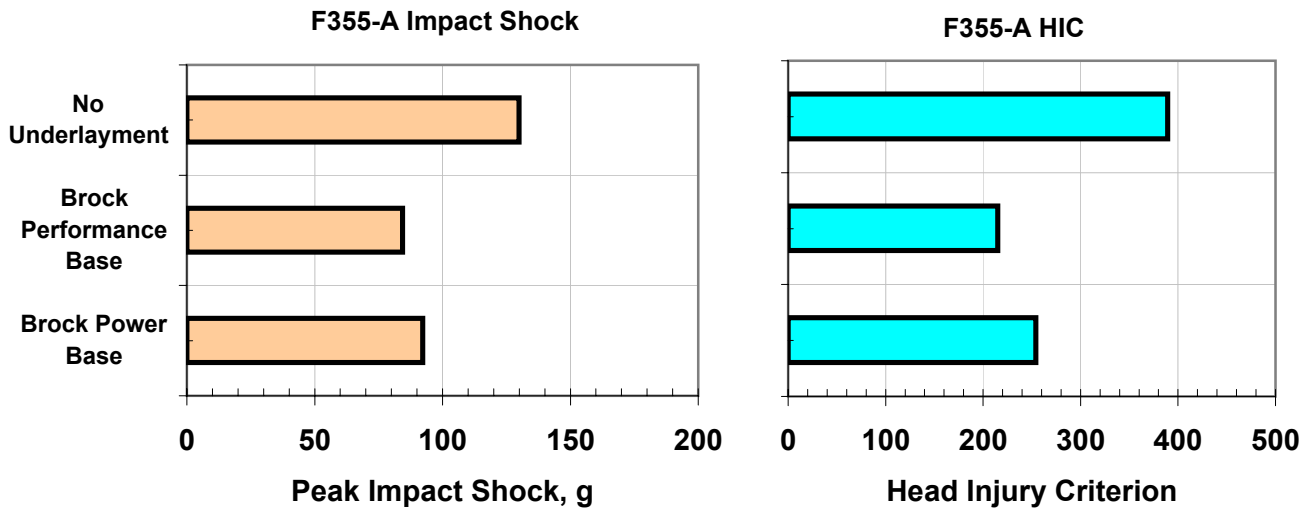
Prestige Footwear Impact Test

Condition		Heel		Forefoot		F355-A	
		g-max mm	x-max mm	g-max mm	x-max mm	gmax	HIC
A	No Underlayment	15.3	8.5	18.3	11.8	129.9	453.6
B	Brock Performance Base	15.3	12.3	16.2	10.3	84.4	215.1
C	Brock Power Base	16.3	10.0	16.7	12.3	92.3	254.1

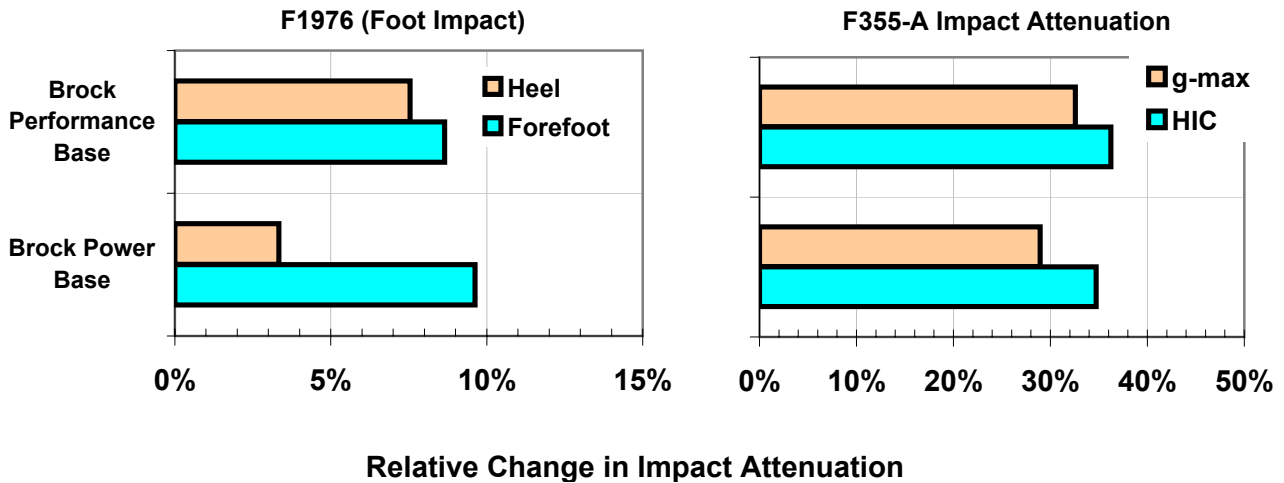


F355-A (Head/Body Impact)

Prestige F355-A Impact Test



Relative Impact Attenuation
(Relative to No Underlayment Control)



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