Synthetic Turf Underlayment Material

Internal Test Report - Compressive Strength (Stiffness)

Brock Performance Base material at different Temperature Conditions:
Ambient Dry, Frozen Dry, Frozen with H20

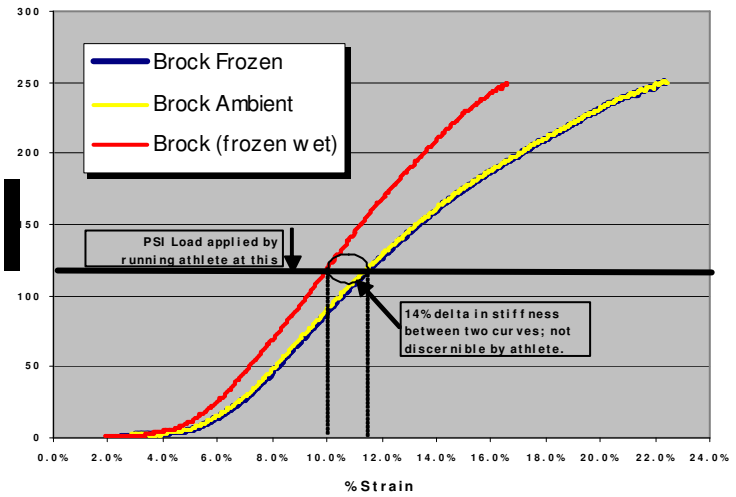
Test Date: 12 Dec. 2003

Test Articles: Brock synthetic turf underlayment material, HREPP
Nominal thickness – 0.9 inches
Trade name – Brock Performance Base™

Purpose: To determine if Brock Performance Base would significantly change in stiffness in cold temperatures.

Method: Three samples of Brock Material were tested without infill turf on top. Sample 1 was tested at ambient temperature on an Test Resources Instron model 100-200Q. The sample was compressed to the maximum load cell capacity of 250 lbs, or 62.5 PSI. Sample 2 was frozen in a freezer at a temperature of –20F for 36 hours and tested under the same conditions as above. Sample 3 was submerged in water and allowed to drip but retained enough water to simulate real life conditions, such as a melting snow that is then frozen within the Brock material. Sample 3 was then placed in the freezer at –20 until the water was frozen in the sample. It was then tested under the same conditions as above.

Results: There is no demonstrable difference between sample 1 and sample 2. Sample 3 was 14% stiffer at loads of 30 PSI, the approximate load of a running athlete. Since it has been shown that the human body can only detect a 20% difference in stiffness or greater, it is presumed that an athlete will not be able to discern a difference in "feel" of play with Brock Performance Base even over a wide temperature band. This report does not consider the effects of temperature and moisture on infill turf commonly used on a Brock Performance Base.



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