International Hockey Federation

synthetic turf
... yesterday
... today
... tomorrow

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Turf - history

- 1970/1: Empire Stadium, Vancouver
- “the autumn 1970 rains transformed an acceptable playing surface into a magnificent hockey pitch”
- 1976: Montreal Olympics: played on synthetic turf
- ... and all major competitions since
- ... standards developed later ... 1986
Turf - standards

- Standards for elite ("global") pitches specified an unfilled turf
- ie, standards assumed a water-dressed turf
- ... players expect a water-dressed turf
- ... because of its playing characteristics
- ... especially ball movement, shoe grip, personal comfort (eg falling, sliding)
Turf - standards

- impact response - berlin athlete/ISA sports floor tester
- pile/pad deformation - berlin athlete/ISA sports floor tester
- colour - “green” - methuen handbook
- gloss - glossmeter
- porosity - BS 7044
- ball rebound - height and deviation from average
- ball roll - distance and deviation from straight
- ball-to-surface friction - roll on a sloping surface
- underfoot friction - modified leroux apparatus
Turf – standards

• ... do not fully represent the dynamics of play
• ... do not fully reflect player comfort (eg falling, sliding)

• ball rebound – height and deviation from average
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Turf - standards

- ... do not fully represent the dynamics of play
- ... do not fully reflect player comfort (eg falling, sliding)
Turf – the future

• require a turf which is not water-dependent – “water-free”
• ... for environmental and cost reasons
Turf - research

- the dynamics of playing the game
- ball-pace (a combination of speed, rotation and slide)
- ball-surface friction
- ... dribbling skills ... slower movements of the ball
- ball-movement ("hawkeye")
- ... hitting the ball
Turf – research

- the dynamics of playing the game
- the comfort of players
- ... running ... turning
- ... falling ... sliding
- shoe-turf interaction
- body-turf interaction
Turf – research

• ... standards from other sports?
• ... existing research?
  • stud slide/deceleration (FIFA 7)
  • skin/surface friction (FIFA 8)
  • skin abrasion (FIFA 9)
• shoe-turf interaction
• body-turf interaction
yesterday, today, tomorrow

• most sports ... need to persuade players to accept synthetic turf

• hockey ... synthetic turf is accepted ... expected

• ... deliver expectations with new turf types ... water-free ...

• ... in cooperation with the industry and the game ...

• ... based on performance standards ...
yesterday, today, tomorrow

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- in cooperation with the industry and the game ...
- based on performance standards ...
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?? comments ??

?? advice ??

?? questions ??