

Sportsurf Seminar

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Design Issues for Synthetic Turf Surfaces

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Synthetic surfacing systems and specifications

- Synthetic grass
- Use in soccer, rugby, others
- Mostly regulated by;
Governing Body Codes
Euro norms
- Purpose and objective



Purpose and objective

- “A synthetic sports surface shall provide a safe, uniform, reliable playing surface which will perform well throughout its given life”
‘anonymous’



Dilemma for industry

- Taking responsibility
- Producing high quality, long life surfaces that perform at the required level for ‘**as a minimum**’ the warranty period offered
- Costs associated with meeting this objective and who pays
- The sufficiency of guarantees/warranties offered
- Governing body producing codes which achieve the purpose and objective



Issues with the design of the 'system'

- Dynamic base versus engineered base
- Role of shock pads
- Yarn; tape versus mono-filament
- Rubber infill systems
- Pile density/height



Yarns - tape



Yarns - tape



Yarns – mono filament



Yarns – mono filament



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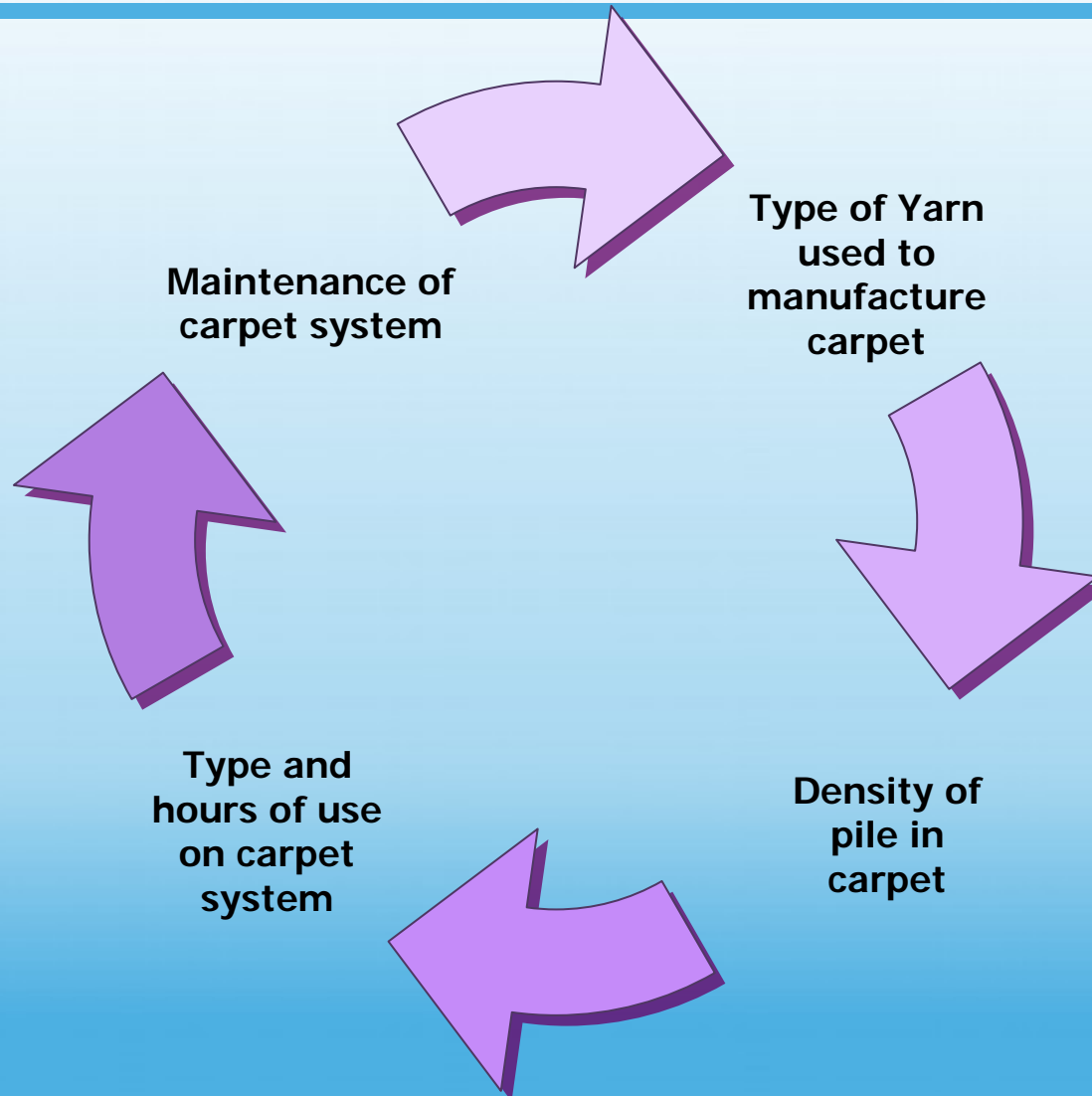
Case study



Case study



Mechanisms for wear on surfacing



Alternative infill materials



Methods of evaluation

- Compliance testing
- Weathering tests
- Sports related performance testing
- In service observations



The role of maintenance

- Produce surfaces which are able to maintained!
- Provide the correct equipment
- Provide training
- Essential for long life
- Does not resolve the issue of performance long-term



Environmental issues

- Recycled materials in base
- Recycling of shock pads
- Recycling of infill materials
- Recycling carpets



Future

- Better constituents, better products
- Research requirements
- The energy restitution of systems
- The ability of yarns to remain upright
- Fill/matrix stability testing
- Methods of comparing insitu wear with laboratory simulated wear
- Test methods to measure the degree of degradation in grass pile
- Real life simulation in a test of ball/surface performance in soccer/rugby/GAA sports
- 100% recyclable products



Summary

- Regulation is inconsistent
- To date research on surfaces has been poor
- Culture of funding agencies has been wrong
- Manufacturers/contractors must take more responsibility



Questions

Any Questions?

