3G synthetic turf pitch

3G pitch suitability & certification
See table overleaf.

Pitch dimensions & markings
See sportscotland datasheets:
- 001 Pitch & Court markings - Football
- 002 Pitch & Court markings - Rugby Union
- 003 Pitch & Court markings - Shinty
- 005 Pitch & Court markings - Rugby League

Pitch gradients
Synthetic turf pitches should be laid flat in the direction of play as well as ideally across the width of the pitch.

Fencing
sportscotland recommends that a weld mesh fence is erected around the perimeter of the pitch, to minimise ball stray and to provide security to the pitch. A minimum fence height of 3m is recommended, increasing to 5m behind the goals when the pitch is to be used for rugby or football.

Consideration must be given to factors such as site location, type of use, management arrangements when developing the fence specification. There are many proprietary fencing systems available on the market, although we do recommend that a polyester powder coated weld mesh is used with a minimum wire gauge of 4mm.

Floodlighting
4 to 8 lighting columns are normally specified for a full size pitch. These must not encroach on the run off area.

sportscotland recommend that a switchable system is considered to allow the lights to be varied for training or match play and part or full pitch illumination.

Required maintained lux Levels:
- Minimum for use: 100lux
- Training: 200-300lux
- Match play: up to 500lux

Please refer to the governing body guidelines for individual sports as to the lighting requirements. Please refer to The SAPCA code of practice for provision of Outdoor sports lighting for more details on installation.

Orientation
Correct orientation of a pitch will alleviate problems of glare during early morning or evening sun and during the low angle of the sun in winter.
Ideal orientation is (North – South) Between 285° and 20°
With the best common orientation for sports pitches being 345°

Typical usage
One of the key benefits of opting to construct a synthetic turf pitch rather than a natural grass pitch is the level of use it can sustain all year round. On average, a synthetic turf pitch can be used up to 60 – 80 hours per week, while a grass pitch is closer to 6 - 8 hours per week.

Maintenance & life expectancy
Maintenance of the pitch is essential and will determine the condition and life span of the surface. The agreed schedule of maintenance should be in line with the hours of use, type of surface and performance requirements. Costs of this should be considered within any proposed project.
Please refer to the The SAPCA code of practice for maintenance of Artificial Turf Pitches for details of procedures and requirements.
### 3G synthetic turf pitch suitability

<table>
<thead>
<tr>
<th>Football</th>
<th>Rugby</th>
<th>Hockey</th>
<th>Shinty</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>40mm Pile</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Suitability</strong></td>
<td>Suitable for training.</td>
<td>Unsuitable for full contact training. Suitable for non contact training and activities such as touch / tag rugby.</td>
<td>FIH accredited pitches can be used in the following situations: - Schools hockey up to SS3 - Beginner sessions - Low level social play Unsuitable for training or match play leading to performance development.</td>
</tr>
<tr>
<td><strong>Certification</strong></td>
<td>Can achieve FIFA 1* or 2* certification depending on full specification. FIFA 1* or IATS equivalent certification is recommended. BS EN 15330 certification is acceptable for school / community use.</td>
<td>The design, construction and testing must comply with FIH certification scheme.</td>
<td>The pitch must comply with the Camanachd Association specification for pitches.</td>
</tr>
</tbody>
</table>

| **55mm Pile** | | | |
| **Suitability** | Most suitable length for training. Most suitable length for match play. sportscotland recommend a shock pad in all installations. | Unsuitable for training. Unsuitable for match play. At the time of publication no 55mm turf has been tested to FIH national standard. | Suitable for training. Suitable for match play. |
| **Certification** | Can achieve FIFA 1* or FIFA 2* certification depending on full specification. FIFA 1* or IATS equivalent certification is recommended. BS EN 15330 certification is acceptable for school / community use. | Rugby League: The pitch must comply with the RFL performance standard for synthetic turf pitches. | The pitch must comply with the Camanachd Association specification for pitches. |

| **60mm Pile** | | | |
| **Suitability** | Good surface for training. Good surface for match play. sportscotland recommend a shock pad in all installations. | Unsuitable for training. Unsuitable for match play. At the time of publication no 60mm+ turf has been tested to FIH national standard. | Suitable for training. Suitable for match play. |
| **Certification** | Can achieve FIFA 1* or 2* certification depending on full specification. FIFA 1* or IATS equivalent certification is recommended. BS EN 15330 certification is acceptable for school / community use. | Rugby League: The design, construction and testing must be IRB compliant. Periodic re-testing is required to maintain certification. Certification required from SRU. | The pitch must comply with the Camanachd Association specification for pitches. |

| **Floodlighting Requirements** | 200-250lux | 200-250lux | 200-300lux | 200-300lux |
| **Training** | up to 500lux | | | |
| **Match Play** | up to 500lux | | | |

**Source documents**
- Scottish Football Association, Scottish Rugby Union, Scottish Rugby League Scottish Hockey, Camanachd Association

Compiled by: Graham Finnie & Kate Matthews on behalf of sportscotland in July 2012
Please contact a member of our Facilities Team to discuss your project in detail:
sportscotland, Templeton on the Green, 62 Templeton St, Glasgow G40 1DA  |  e: facilities@sportscotland.org.uk  | t: 0141 534 6500

**Endorsed by**
- Scottish Football Association, Scottish Rugby Union, Scottish Rugby League Scottish Hockey, Camanachd Association

ISBN: 978 1 85060 578 2