



REVOLUTIONISING MAINTENANCE

Northumberland FA 3G Pitch Maintenance Training

Thursday 21st November 2019



MAINTENANCE FOR ALL SYNTHETIC SPORTS SURFACES



What we will cover



- Introductions
- A bit of background knowledge
- Why maintain
- FA Performance Standards
- What affects performance
- What are the challenges
- Best maintenance practice
- Reporting & tracking



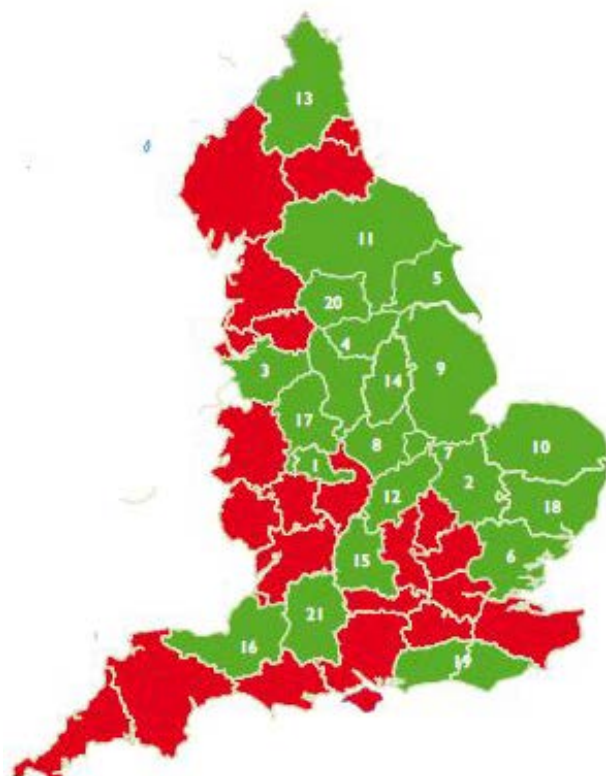
Company profile

- Established 2002
- 2 Offices - England and Scotland
- 30 Employees
- 100 Pitches per week maintained
- 1500+ Facilities inspected & maintained annually



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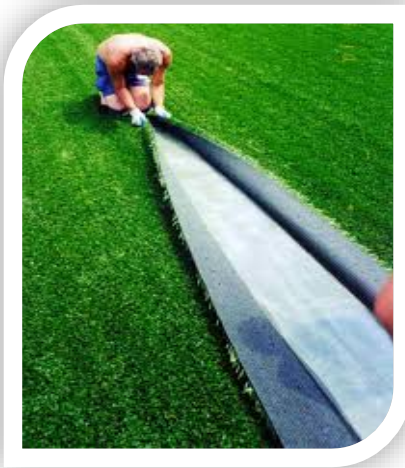
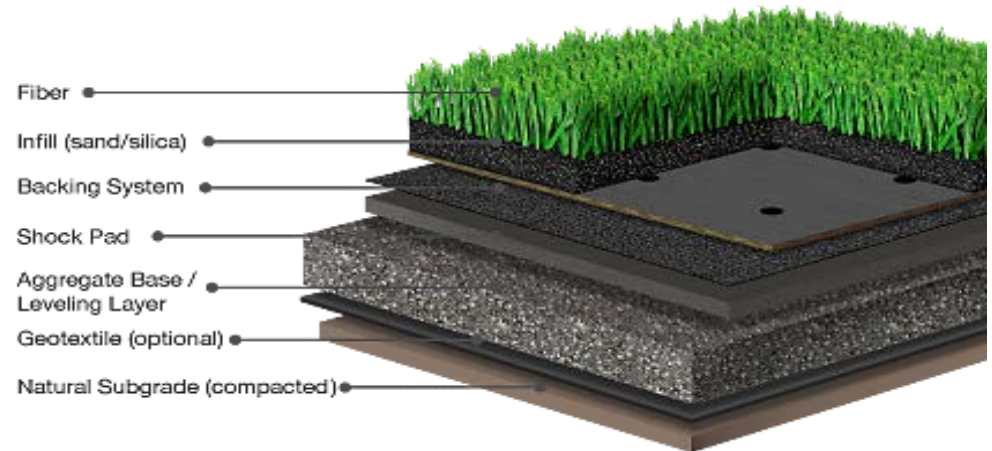
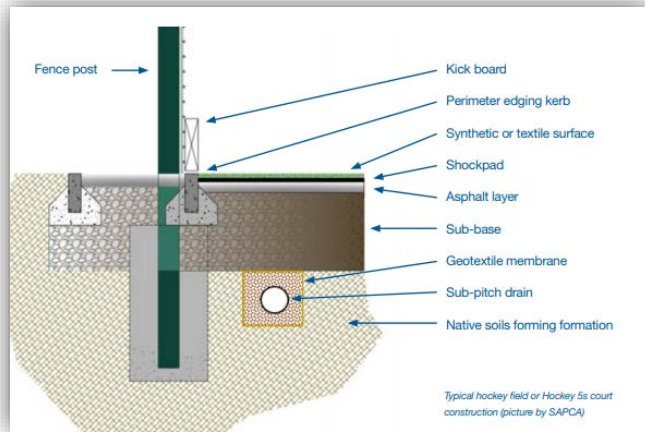
REPLAY.
PRESERVING PLAY



21 County FA Partnerships

- | | | |
|--|--|---|
|  1. BIRMINGHAM |  8. LEICESTERSHIRE |  15. OXFORDSHIRE |
|  2. CAMBRIDGESHIRE |  9. LINCOLNSHIRE |  16. SOMERSET |
|  3. CHESHIRE |  10. NORFOLK |  17. STAFFORDSHIRE |
|  4. DERBYSHIRE |  11. NORTH RIDING |  18. SUFFOLK |
|  5. EAST RIDING |  12. NORTHAMPTONSHIRE |  19. SUSSEX |
|  6. ESSEX |  13. NORTHUMBERLAND |  20. WEST RIDING |
|  7. HUNTINGDONSHIRE |  14. NOTTINGHAMSHIRE |  21. WILTSHIRE |

How a pitch is built



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Surface Categories

- 1G – the original Astroturf – non infill
- 2G – Sand Filled and Sand Dressed
- 3G – Rubber infilled (40mm to 65mm)
- 4G –back to non infill

Surface Types

| Pitch type | Rubber crumb type | | Sand type | | | Water type |
|-----------------------------|--|--|--|--|--|--|
| Category | Long Pile 3G (60-65 mm with shock pad) | Long Pile 3G ¹ (55-60 mm) | Short Pile 3G ¹ (40 mm) | Sand Filled ¹ | Sand Dressed ¹ | Water based ¹ |
| |  |  |  |  |  |  |
| Comments on sports surfaces | Rugby surface | Preferred 3G football surface | Acceptable surface for football and hockey | Acceptable surface for competitive hockey and suitable for football training | Preferred surface for competitive hockey and suitable for football training | High level competitive hockey and suitable for football training if pitch irrigated |
| Sport | | | | | | |
| Hockey |  |  |  ² |  ² |  ² |  ² |
| Rugby League |  ³ |  ³ |  ⁴ |  ⁵ |  ⁵ |  ⁵ |
| Rugby Union |  ⁶ |  ⁷ |  ⁵ |  ⁵ |  ⁵ |  ⁵ |
| Football |  ⁸ |  ⁸ |  ⁸ |  ⁹ |  ⁹ |  ⁹ |

© Sport England 2013

Why Maintain

The key aims are to maximise:

- Safety
- Appearance
- Life Expectancy
- Performance Standards

Maintenance should always be considered a preventative rather than a reactive measure.

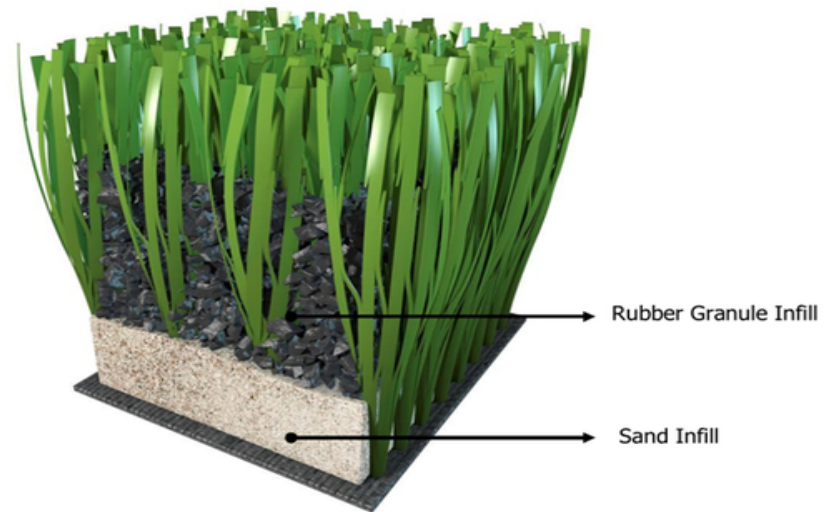


The aim of Maintenance

An active maintenance programme will maximise the lifetime of the installation and ensure many satisfactory years of use.

The maintenance regime is based around simple principles:

- Keeping the surface clean
- Maintaining the infill level
- Keeping the fibres upright
- Find & report minor defects before they become a problem



FIFA Quality Concept for Football Turf

FIFA Football Turf Field Test Report

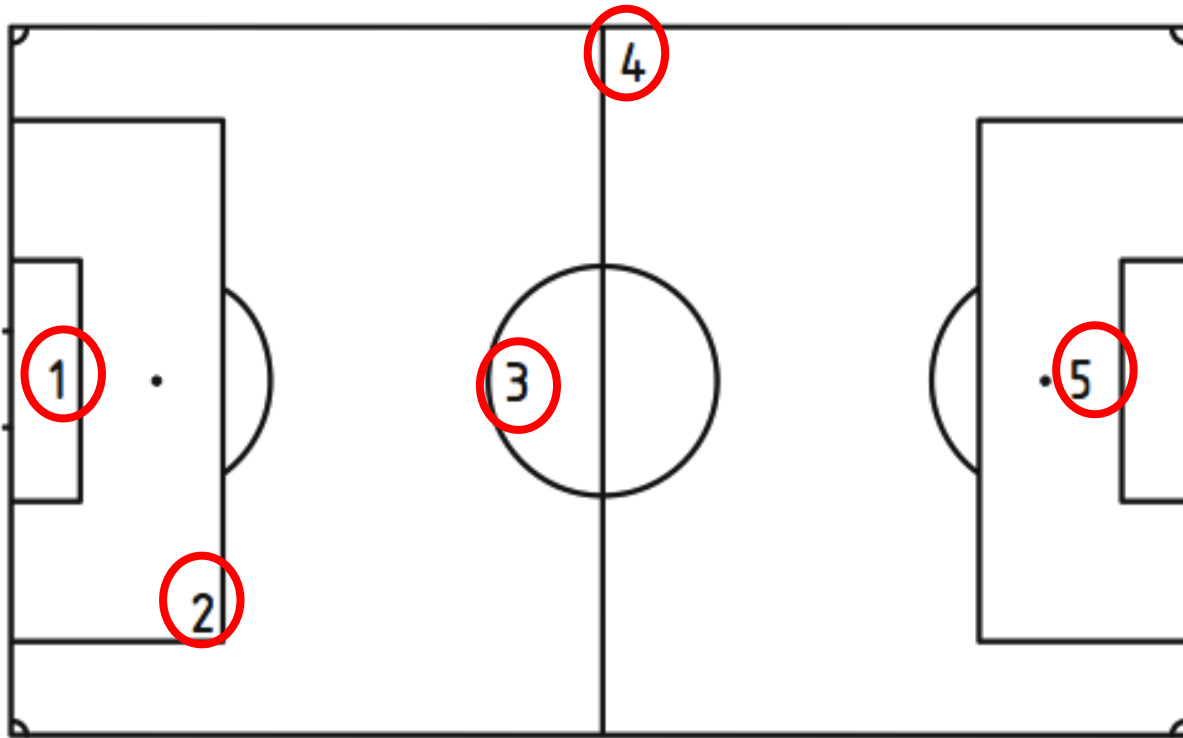
4.3 Overview – Ball and Player to surface interactions

How is the field to play?

By means of the following parameters, this question can be answered very well. Furthermore, some values allow **conclusions regarding maintenance** in order to keep the field in top shape.

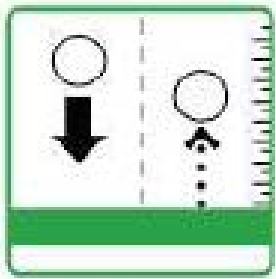


Test positions for full-size football pitches



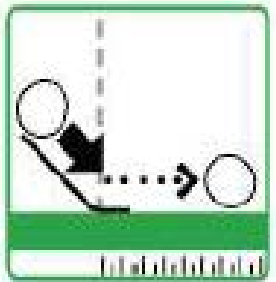
FIFA Quality Concept for Football Turf

Ball / Surface Interaction



Vertical Ball Rebound –

The higher the value the higher the ball will rebound. The ball should not bounce too high or too low.



Ball Roll –

The higher the value the faster the ball will run over the surface. The ball should not be too fast or too slow.

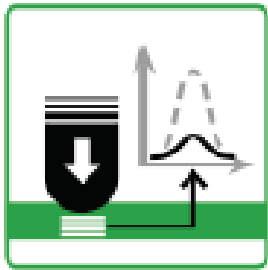
FIFA Quality Concept for Football Turf

Player / Surface Interaction



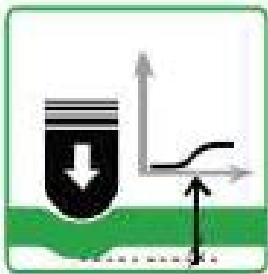
Rotational Resistance

This simulates the player's ability to alter direction, too high a value and stress can occur across knee ligaments, too low and the player will not be able to grip the surface and may slip causing ligament damage.



Shock Absorption –

Shock absorbency is an indication of how hard the field feels to the player. A value that is too low indicates a hard field and cause damage to player's joints too soft and the surface is energy sapping resulting in increases in fatigue and over-use injuries.



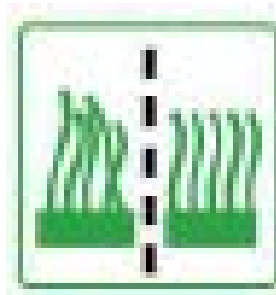
Deformation.

A surface that deforms too much will result in overstretching of ligaments particularly around the ankle.

FIFA Quality Concept for Football Turf



- Surface Regularity (<10mm)
- Pitch Dimensions (Length 90-120m Width 45-90m)
- Run Offs (min. 3m)



- Maintenance Equipment on site

What affects the Performance Standards

Construction:

- Seams and Inlaid lines
- Engineered or Dynamic base
- Shockpad



What affects the Performance Standards

Fibres:

- Flattened Carpet Fibres
- Fibrillated, Split or Worn Fibres



Infill:

- Compacted
- Uneven
- Too low or too high



What affects the Performance Standards

Debris and Contamination:

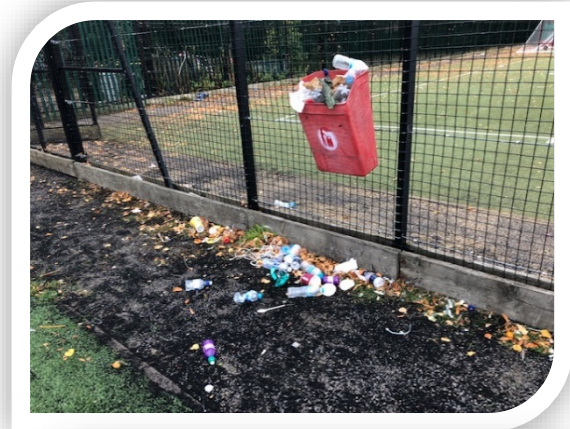
- Leaves & Litter
- Weeds & Moss
- Dirt & Dust (micro-plastics)



What affects the Performance Standards

Other:

- Goals & Nets
- Fence & Surrounds
- Access & Egress



What are the Challenges?

■ Player Footwear

✗ Flatsoled trainers

✗ Blades

✗ Metal studs

✓ AG Boots

■ Amount of players on the pitch

- 11 v 11 (22 players x 1 hour play) = 1 hour of use
- 7 v 7 (x 3 pitches) (42 players x 1 hour play) = 2 hours of real use
- Warranties based on hours of use rather than years of play

■ Overuse (eg. penalty spots, corners, goalmouths)

Actual Pitch Usage Calculator

01636 640506

info@replaymaintenance.co.uk

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PRESERVING PLAY

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Maintenance Calculator

The maintenance calculator below is designed to provide a guide to the 'Actual Hours' of play taking place at your facility. By entering your details below, Replay will be able to more accurately advise on the maintenance requirements for your facility. If you are an existing client of Replay Maintenance make sure to submit your 'Actual Hours' calculation where they will be added into your existing Reportal for you to keep and view. Having your details stored with Replay provides your facility with a level of proof to the carpet manufacturer that you are conducting the correct level of maintenance (avoiding any costly repairs, or the risk of prematurely expiring the carpets warranty).

If you're not an existing client, please feel free to contact us on 01636 640506 to discuss with a member of our team.

Please complete all the questions as precisely as possible to provide you with the most accurate calculation.

Facility Name:

Post Code:

Date:

How many hours has the pitch been played this week?

Hours of use

Area of pitch (M²)

Based on the figure above, how many hours has the pitch been used for each of these situations?

| | | | | |
|--|-----|--------------------|-----|--------------------|
| 1. Full Pitch Hire 22 players* | | Hours of use | NaN | Actual hours |
| 2. Half Pitch Hire (7-a-side) 28 players* | | Hours of use | NaN | Actual hours |
| 3. Third Pitch Hire (5-a-side) 30 players* | | Hours of use | NaN | Actual hours |
| *Assumed total number of players | NaN | Total hours of use | NaN | Total actual hours |

Submit

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Pitch Overuse



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What's the solution?

■ Maintenance Regime

- Quality
- Frequency
- Purpose



Preventative – In-House Maintenance

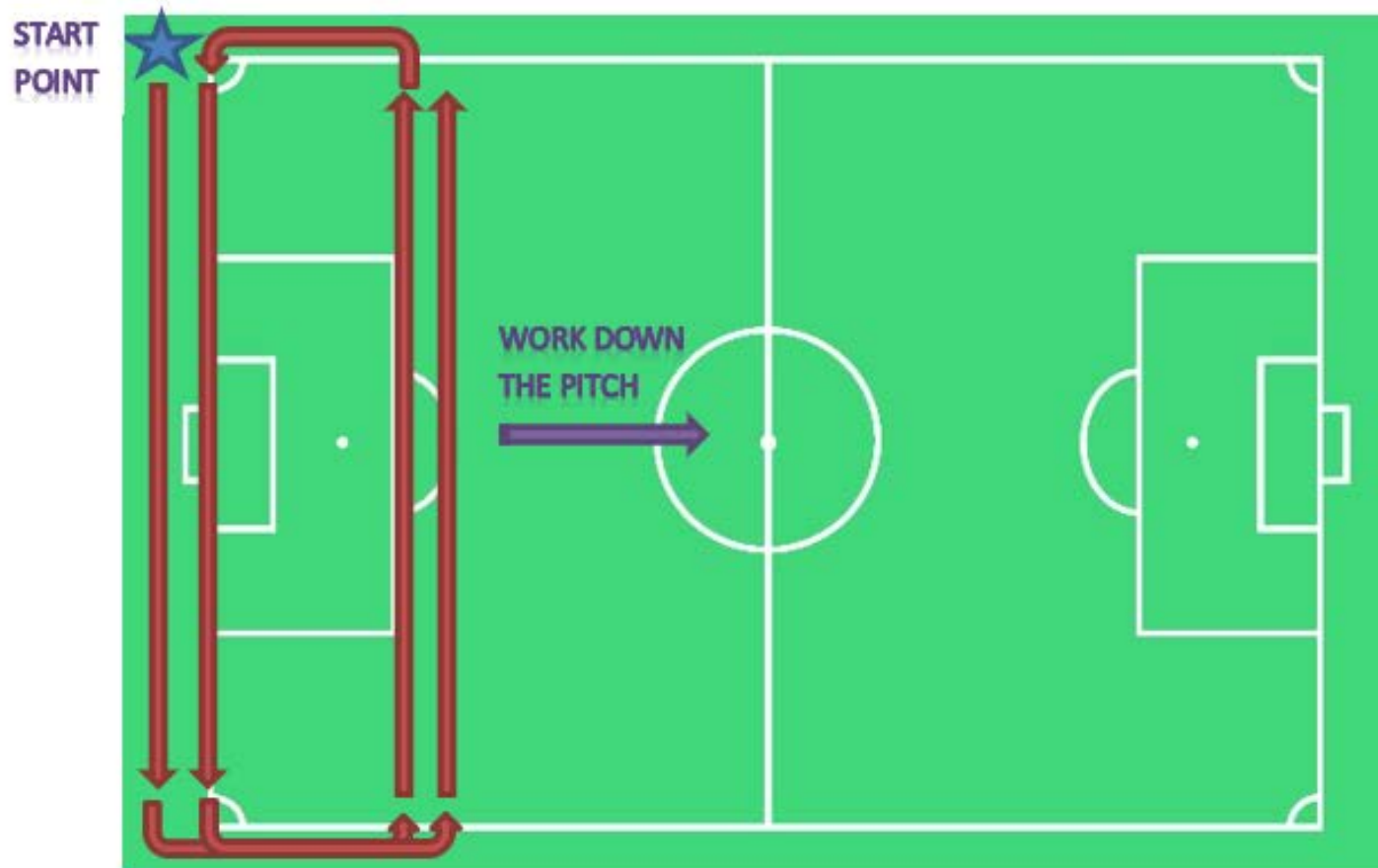
- Litter Pick
- Empty bins
- Drag Brush
- Inspect the pitch
- Top up penalty spots etc.
- Log & report any issues

Considerations:

- Budget & Machinery
- Staff expertise and time
- Type and hours of usage



Drag Brushing



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Drag Brushing

- Drag Brushing should be carried out in a uniform pattern working width-ways across the pitch.
- Avoid tight 180° degree turns so stagger each pass.
- Alternate the Start Point each time so that the pitch gets brushed in both directions.
- Pay particular attention to high wear Goal Mouth Areas and if necessary brush these multiple times backwards and forwards to help agitate and lift the fibres in all directions.
(This would also apply for 5-a-side and 7-a-side Goalmouths)

Preventative - Specialist Maintenance

- Remove surface debris
- De-compact the surface and infill
- Deep clean removing fines and dusts.
- Lift the carpet fibres
- Evenly redistribute the infill
- Restick seam & lines as required
- Post Maintenance Report



Reactive - Specialist Maintenance Processes

- Rejuvenation (sand)
- Repairs
- Infill Top-Ups
- Line Marking
- Weed removal



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Maintenance Innovation -AquaField

- AquaField
 - 3G Infill Wash
 - Microplastic removal



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Measuring the Benefits

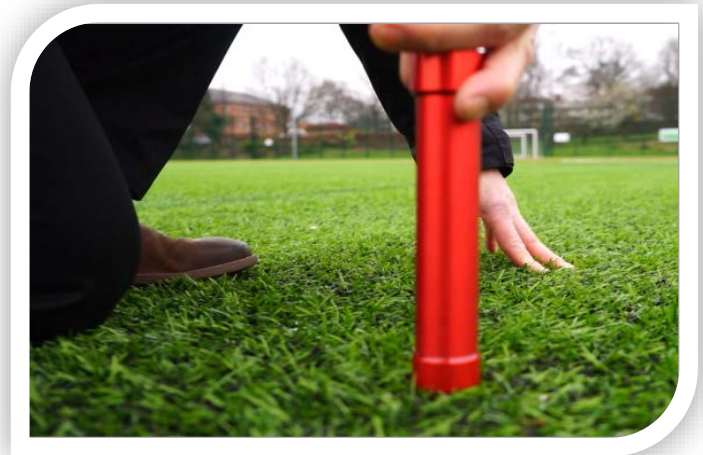
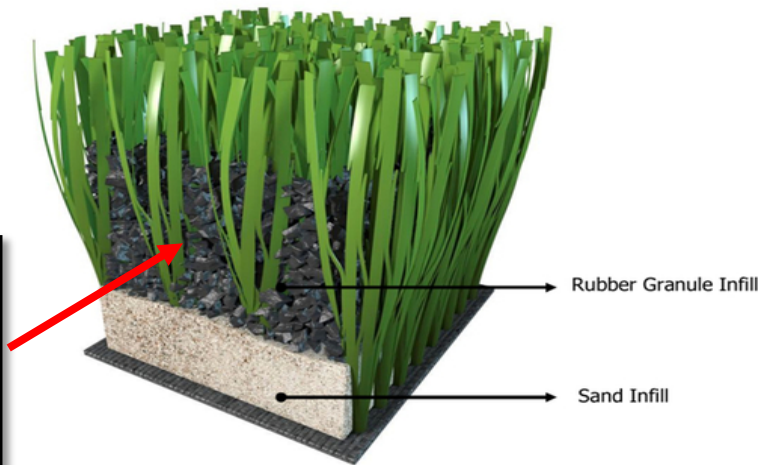
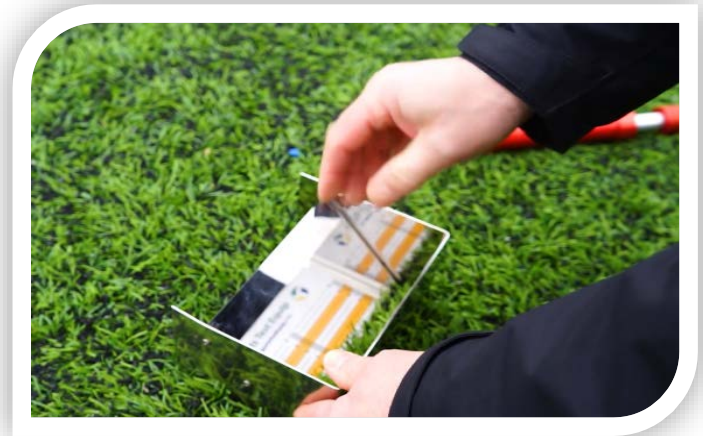
Measuring the benefits:

- Infill height
- Free pile height
- Ball roll
- Shock Absorbency
- Deformation
- FA Testing



Taking Measures

- Infill height
- Free pile height



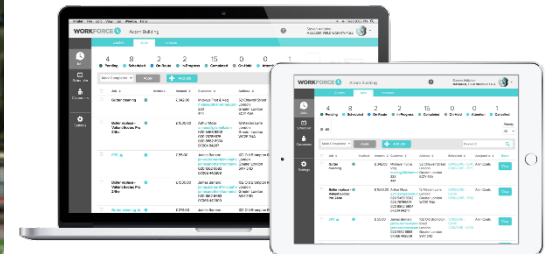
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Record your maintenance



- Track & Trace
- Protects Warranty
- Protects You
- Claims Defence
- Proof of work
- Manage your time
- Save & Store



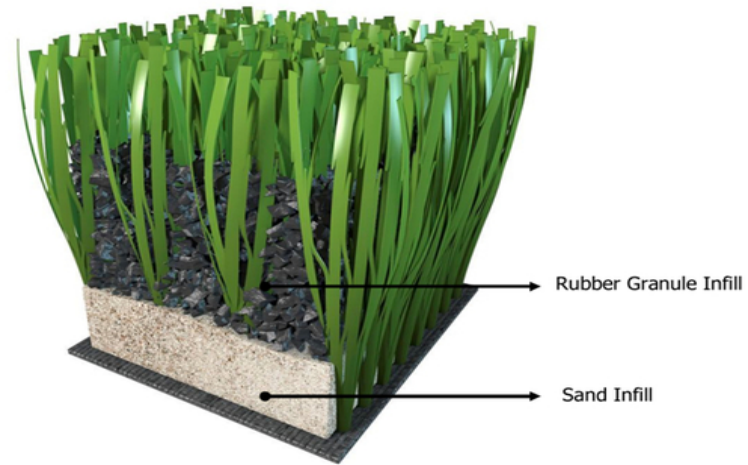
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To SummariseMaintain Performance

The maintenance is based around simple principles:

- Keep the surface clean
- Regulate the infill levels
- Keep the fibres upright
- Find & report minor defects before they become a problem





3G Pitch Maintenance Training

Thank You – Any Questions?



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