

AGP Framework 2020				
Employer's Requirements	15	END OF LIFE DISPOSAL OF SYNTHETIC TURF SURFACES	Version	1.2

1 Introduction

The Football Foundation and its partners wish to take a proactive approach to the end of life disposal of synthetic turf pitches; whenever they grant aid the resurfacing or conversion of an existing synthetic turf sports field.

End of life disposal of synthetic turf pitches comprise a number of different components and the requirements of the Football Foundation, detailed in this document, apply to all of them. This includes:

- Synthetic turf carpets
- Performance infill
- Stabilising infill
- Pre-fabricated shockpads
- Insitu laid shockpads and elastic layers

In accordance with UK legislation¹, a synthetic turf sports surface that has reached the end of its service life and is lifted to enable replacement, becomes a **'waste'** material.

Notes:

- 1 This definition has been the subject of much legal debate and subsequent judicial rulings, but essentially the test of the definition has to be applied objectively and the word 'discard' is understood to mean 'to get rid of'. As a worn-out synthetic turf sports surface is being removed and discarded and will not be reused in its current condition for the purpose for which it was designed, it is classified as 'waste' under the regulations.
- 2 In the case of the infill within the pile of the carpet, this will have become contaminated over time, meaning that it cannot be classed as a suitable replacement for 'new' material in its untreated state, (i.e. the infill needs to be processed or cleaned before being suitable for reusing as an infill), meaning it is still classified as 'waste'.

Waste Hierarchy

The basic principles of the handling of waste are defined in the Waste Hierarchy, which seeks to ensure waste is handled in the most sustainable way by ranking waste management options according to what is best for the environment. It gives highest priority to preventing waste in the first place. When waste is created, it gives precedence to preparing it for reuse, then recycling, then energy recovery, and finally disposal (e.g. landfill). The Waste Hierarchy is derived from the revised Waste Framework Directive

¹ based on the Waste Framework Directive (Directive 2008/98/EC) which states: *Waste means any substance or object which the holder discards or intends to, or is required, to discard*

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(Directive 2008/98/EC) and was incorporated into legislation via the Waste (England and Wales) Regulations 2011, as amended.

It is a legal requirement to make sure that any waste produced is dealt with in accordance with this hierarchy, i.e. the synthetic turf waste should be sent for recycling rather than energy recovery or disposal whenever possible. Additionally, and in accordance with EU Decision 2000/532/EC, waste materials must be classified using the most appropriate six digit code found in the European Waste Catalogue (EWC).

Once a synthetic turf surface reaches its end of life, it cannot be used/reused further, so it needs to be disposed of, and following the principles of the Waste Hierarchy this should be by recycling. Recycling takes two principal forms, open-loop, and closed-loop. These may be defined as²:

Closed-loop Recycling

Where a product is used, discarded, captured, and then the component materials are recycled into a new product of similar functionality which is then itself used, discarded, and captured, to be recycled again, continuously cycling the material resource through the supply chain.

Closed-loop recycling is the Football Foundation's preferred form of recycling. Ultimately, they wish to see all the components that make-up a synthetic turf surface that is being replaced as part of the pitch resurfacing or conversion, being processed in closed-loop operations.

The Football Foundation will work with the AGP 2020 Framework Suppliers and larger UK recycling supply chain to facilitate this.

Examples of synthetic turf surfacing closed-loop recycling include:

- recovery and processing of pile yarns to create new pile yarns for use in synthetic turf surfaces
- recovery and processing of primary and/or secondary backings to form new primary and/or secondary backings for synthetic turf surfaces
- clean, grade and reuse of performance or stabilising infill within a new synthetic turf surface
- recovery and processing of shockpads to form new shockpads

Open-Loop Recycling

Where material is recycled in an open-loop process the output product is not the same as the material being recycled. The material is made into a substantially different product with different properties. The product is often non-recyclable or has degraded recycling capabilities.

² Based on definitions detailed in Guidance on applying the waste hierarchy; 2017. Scottish Government

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Examples of synthetic turf surfacing open-loop recycling include:

- agglomeration of synthetic turf carpets and shockpads for processing as secondary use plastics
- thermochemical conversion (pyrolysis) of synthetic turf carpets, shockpads or infill into secondary use raw materials
- cleaning, grading and reuse of performance or stabilising infills for applications other than synthetic turf infills
- re-melting of performance infills and use in thermoset products other than performance infills

Within the sports industry a number of open-loop processes are being used to produce components that are then re-used in the construction of new sports facilities. This approach is viewed positively by the Football Foundation, as it encourages a commercially viable intramural approach to the recycling of synthetic turf surfaces by the sports surfacing industry.

Examples of sports component open-loop recycling include:

- agglomeration of synthetic turf carpets and shockpads for processing into materials to make shockpads or polymeric infills.

2 Football Foundation Approved List - Synthetic Turf Recycling Companies

To ensure that end of life synthetic turf pitches are processed in a way considered acceptable by the Football Foundation and its partners, a *Football Foundation Approved List - Synthetic Turf Recycling Companies* will be developed. Only the recycling companies and their listed processes will be authorised for use on AGP 2020 Framework funded projects. The Football Foundation will also publish the list and encourage other UK sports' governing bodies and users of synthetic sports surfaces to incorporate the list into their synthetic turf replacement project specifications.

Note - inclusion of a recycling company/process on the Football Foundation List will not remove the need for the recycling company, or anyone using its services, from ensuring all aspects of a synthetic turf pitch's removal, handling and recycling are undertaken in accordance with UK legislation.

3 End of life disposal

All end of life synthetic turf components shall be disposed of in accordance with this section of the AGP 2020 Employer's Requirements.

Football Foundation requirements

- End of life synthetic turf components shall be disposed of by a company and process listed on the *Football Foundation Approved List - Synthetic Turf Recycling Companies*.

Note - Details of the criteria a company needs to satisfy to appear on the list are described in Annex A of this document.

- Dispensation from these requirements will only be granted in exceptional circumstances. In such cases the end of life synthetic turf surface shall be disposed of by energy recovery (incineration)
- Under no circumstances shall end of life synthetic turf surfacing be disposed of by repurposing or land fill.
- If an AGP Framework Supplier wishes to recycle performance or stabilising infill for use in a new AGP framework 2020 funded installation, they shall supply test results showing the infill’s compliance with the appropriate quality requirements of the AGP 2020 Employer’s Requirements. These shall be submitted to the Framework Managing Consultant prior to the installation of the infill into the new surface.

Note – these requirements partly superseded the AGP Framework 2020 Employers Requirements document 04.

4 Waste Management Sites

All end of life synthetic turf components shall be disposed of at sites that comply with this section of the AGP 2020 Employer’s Requirements.

Football Foundation requirements

- The operator of any UK site that accepts waste that is under the control of the AGP Framework Supplier shall either have an Environmental Permit or be registered with the Environment Agency for an appropriate Waste Exemption. Appropriate means that the permit or exemption states that the European Waste Code (EWC) applicable for waste synthetic turf surfacing, can be accepted and that the operations to which the waste will be subjected, are permitted at the specific site.
- AGP Framework Suppliers shall submit a copy of the relevant Environmental Permit or appropriate Waste Exemption certificate to the Framework Managing Consultant prior to Waste materials being transported for processing.

5 Transportation of end of life synthetic turf pitches

Recycling processes are primarily undertaken off site from the location of the pitch. This will require the transportation of materials. All end of life synthetic turf components shall be transported in accordance with this section of the AGP 2020 Employer’s Requirements.

Football Foundation requirements

- Transportation of waste shall only be undertaken by companies registered with the Environment Agency.
- AGP Framework Suppliers shall ensure that they have a copy of the waste transporter’s registration certificate, prior to waste being collected from their site.
- If the waste material is to be transported across national borders, the Framework Supplier, or their agent, shall apply for all necessary classification papers and transport permits from the relevant local authorities prior to waste being collected from their site. Copies of the permits shall be available for inspection.

Note: The Trans-frontier Shipment of Waste Regulations (2007), as amended, introduced extra requirements over and above the requirements applicable within the UK if waste is to be exported. Expert opinion considered it likely that synthetic turf surfaces (as a mixture of materials) will fall within the scope of the Amber List contained within the regulations.

- If Waste Brokers or Waste Dealers, including companies who do not take physical possession of the waste, are used, they shall also be registered with the Environment Agency and the AGP Framework Supplier shall ensure they have a copy of their registration certificate(s) prior to dealing with them.

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Annex A – Criteria for inclusion on the Football Foundation's list of *Approved Recycling Suppliers - Synthetic Turf Surfaces*

The Football Foundation and Football Association wish to take a proactive approach to the end of life disposal of synthetic turf pitches.

Only recycling processes that are listed on the Football Foundation's *Approved Recycling Suppliers - Synthetic Turf Surfaces* list may be used on Football Foundation AGP 2020 Framework funded projects.

The Football Foundation also plan to publish their list of approved synthetic turf recycling suppliers and will encourage other sports governing bodies and users of synthetic sports surfaces to incorporate the list into their synthetic turf replacement projects.

This annex defines the necessary requirements for a process and company to be included on the Football Foundation list.

Criteria for Football Foundation Approval

Companies wishing to appear on the *Football Foundation Approved List - Synthetic Turf Recycling Companies* should apply and provide proof of compliance with the following criteria:

- 1 Operate a process that has been audited and verified under a recognised environmental technology verification (ETV) scheme, such as:
 - BS EN ISO 14034³
 - European Union's - Environmental Technology Verification pilot programme
 - BS EN 15343⁴
 - Plastics Recyclers Europe - EuCertPlast programme
 - or an internationally recognised equivalent scheme
- 2 Operate a quality management system complying with BS EN ISO 9001⁵.
- 3 Operate an environmental management system certified to BS EN ISO 14001⁶
- 4 The operator of any UK recycling site shall either:
 - have an appropriate Environmental Permit
 - or be registered with the Environment Agency for an appropriate Waste Exemption.

³ BS EN ISO 14034 Environmental Management: Environmental Technology Verification

⁴ BS EN 15343 Plastics. Recycled plastics. Plastics recycling traceability and assessment of conformity and recycled content

⁵ BS EN ISO 9001: Quality Management System

⁶ BS EN ISO 14001: Environmental management systems.

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Note: Appropriate means that the permit or exemption states that the applicable European Waste Code (EWC) for waste synthetic turf surfacing can be accepted and that the operations to which the waste will be subjected, are permitted at the specified site.

- 5 Operators of recycling sites located outside the UK shall provide proof that their operations and site have all necessary permits, etc, as required by the national regulations applicable in the country of operation.
- 6 All works are undertaken in full compliance with all appropriate environmental and waste management / handling regulations.

Application for approval

A company may apply to be included on the Football Foundation list of approved recycling suppliers at any time. Companies wishing to apply shall submit full details of the company, their process(s), production locations, and certifications.

Applications should be submitted to:

Dr Kathryn Severn
Framework and Procurement Manager
The Football Foundation
10 Eastbourne Terrace
Paddington
London
W2 6LG

Email: kathryn.severn@footballfoundation.org.uk

The Football Foundation reserve the right to remove any company that is initially approved and subsequently found to fall below the specified criteria, for whatever reason, at any time.