







RECYCLING FACILITIES FOR SYNTHETIC TURF SYSTEMS IN EUROPE



This document gathers all the recycling facilities for synthetic turf systems based in Europe.

Location of recycling facilities (plants) 

USEFUL DEFINITIONS

END OF LIFE (EOL)		The point in time where the product is no longer able to fulfil the function for which it was designed.
WASTE		Any substance or object which the owner discards or is required to discard. In terms of a synthetic turf sports surface, this is normally when the surface or components reach the end of their life and they are lifted to enable replacement.
RECYCLING		The process of converting end of life (or waste) materials into new materials and products.
MECHANICAL RECYCLING		The process that mechanically converts (cleaning, cutting, grinding, agglomeration, etc) EOL materials into new products.
CHEMICAL RECYCLING		The process in which a polymer is chemically reduced to its original monomer form so that it can eventually be processed (repolymerized) and made into new plastic materials that go on to be new plastic products. This is also known as tertiary recycling.
REUSE		A process whereby a product is turned into a new version of the same product. This process is also known as primary or closed loop recycling.

For further information on REUSE/RECYCLING- see ESTC EOL Guide

THE AVERAGE LIFE OF A SYNTHETIC TURF PITCH

The average life of a full size pitch is around 10 years, based on standard quality, proper installation, adequate maintenance, normal exposure to sunlight and normal usage over its lifetime.

It covers around 7,000m² and weighs on average 220-240 tonnes, distributed over the following:



COMPONENTS	%	WHAT CAN WE DO WITH IT ?
SAND	49%	REUSED IN PITCHES
INFILL (if present)	45%	REUSED IN PITCHES OR RECYCLED
BACKING	2%	RECYCLED INTO NEW PRODUCTS
TURF FIBRES	3%	RECYCLED INTO NEW PRODUCTS
WASTE	1%	DISPOSED OF



RECYCLING FACILITIES FOR SYNTHETIC TURF SYSTEMS IN EUROPE

▶ STATIC PLANT RECYCLING PROCESS

This involves the disassembly of filled turf rolls to separate the sand, infill and plastic turf/backing. In some plants this is a wet process which intends to clean the separate components for recycling. All static plants reprocess the recovered materials to remove contamination. The processed sand and infill are in general reused in pitches, the shredded plastic can be used to make plastic lumber, panels, furniture and, as a pellet, can be used in underlayments.



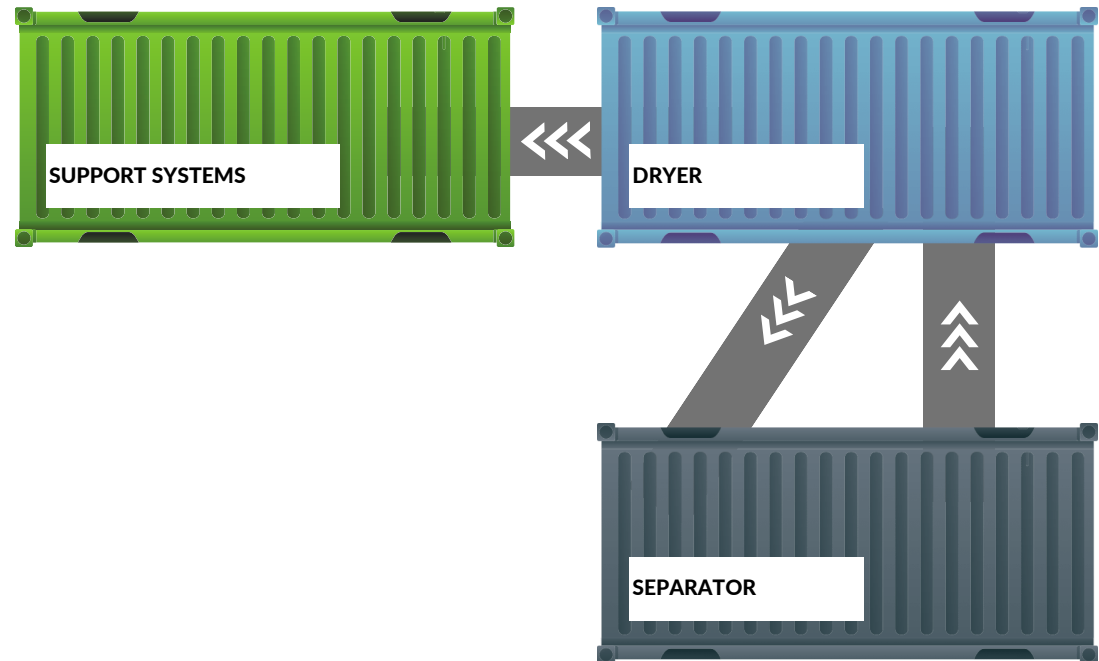
RECYCLING FACILITIES FOR SYNTHETIC TURF SYSTEMS IN EUROPE

WHAT IS A MOBILE SEPARATION PLANT?

This involves bringing the process of separation directly to the field. Its technology ensures separated materials are available for further reuse or recycling.

At this time, infill is available for immediate re-use, the turf component is rolled up for processing elsewhere.

Please note mobile recycling is subject to the correct permits etc, being in place for the country of operation.





RECYCLING FACILITIES FOR SYNTHETIC TURF SYSTEMS IN EUROPE

FEATURES OF RECYCLING FACILITIES













	Re-Match	GBN	PR RECYCLING	ALL SPORTS RECYCLED	FormoTurf	SPORTEX	100% TURF	Revalgreen	INFRA SPORTS	REFIELD
STATIONARY RECYCLING	✓	✓	✓	✓	✓		✓	✓	✓	✓
MOBILE RECYCLING			✓	✓		✓				
ETV-VERIFIED	✓		✓							
EUCERTPLAST-CERTIFIED										
KIWA CERTIFICATE		✓	✓	✓						
ISO CERTIFIED	✓			✓						
FACILITY PROCESSING CAPACITY * [m2]	500,000	500,000	500,000	100,000	1,000,000	500,000	400,000/ 500,000	200,000	100,000	400,000
SEPARATION ON SITE **				✓			✓			
RECYCLING OF INFILL MATERIALS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
RECYCLING OF END OF LIFE (EL) TURF	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

* Mobile plants deal with the materials to be recycled on specific sites.

** Many companies separate infill from turf using a carpet beater.





RECYCLING FACILITIES FOR SYNTHETIC TURF SYSTEMS IN EUROPE









COMPANY	ADDRESS HQ	LOCATION ON MAP	MEMBER OF ESTC	DESCRIPTION
	<p>Hi-Park 415 7400 Herning Denmark</p> <p>www.re-match.dk</p>		YES	Re-Match offers a sustainable solution for recycling of worn-out turf. Their process involves downsizing the turf, cleaning and separating into rubber, grass fibre, sand and backing which can then be returned into a new production cycle. A new Re-Match plant has been opened in Tiel, The Netherlands.
	<p>Westkanaaldijk 2, building 52 3452 DA UTRECHT</p> <p>www.gbn-agr.nl</p>		YES	GBN-AGR has built a processing facility in the Netherlands that can fully process artificial grass into new, high-quality circular raw materials.
	<p>Dieselstraße 9, 70794 Filderstadt Germany</p> <p>www.pr-recycling.com</p>		YES	PR Recycling has specialized in the dismantling of sports fields and playgrounds for 30 years. Dismantling, recycling and transport - all under one roof. PR Recycling is one of the first companies in the world to have a mobile recycling system that makes it possible to recycle elastic layers and elastic base layers on site and make them immediately available for reinstallation
	<p>Åsvegen 560, 7224 Melhus Norway</p> <p>www.allsportsrecycled.com</p>		YES	All Sports Recycled utilizes a mobile recycling system from 100%TurfRecyclers that can effectively recycle synthetic turf fields either on-site or at distribution hubs. The company's recycling process yields several valuable components including clean sand, clean performance infill, and clean turf suitable for reuse or repurposing for sports or landscaping. Additionally, the company produces shaved PE fiber for mechanical recycling. Any components, that are not reusable, repurposed, or recycled within the company are handled through circular and sustainable processes in partnership with other companies.
	<p>Am Stadthafen 9 45356 Essen Germany</p> <p>+49 201 475778 20 info@formaturf.com www.formaturf.com</p>		YES	As a German technology company, FormaTurf addresses the challenges of comprehensive recycling of artificial turf fields and sports floors. All components of an artificial turf system are separated and recycled in a previously unique high-tech recycling process. FormaTurf gives recycled/recyclable materials a "second life" and forms new, useful plastic products as well as customer-specific solutions for sports field construction, but also for a wide variety of applications for the garden, construction and industrial segments.



RECYCLING FACILITIES FOR SYNTHETIC TURF SYSTEMS IN EUROPE

COMPANY	ADDRESS HQ	LOCATION ON MAP	MEMBER OF ESTC	DESCRIPTION
	<p><u>Via Urbania, 69</u> <u>61046 Piobbico (PU)</u>, <u>Italy</u> <u>0039 (0) 722 986390</u> <u>info@refield.it</u> <u>www.refield.it</u></p>		YES	<p>In the field: the removal of exhausted carpets. Correct and efficient disposal of a synthetic turf field must begin with a state-of-the-art removal process, capable of maximizing the materials recovered and reducing the impact on site as much as possible. For this reason Refield has decided to offer its customers a complete and customizable service, relying on industry experts who will carry out the cutting and removal on site through the use of specially designed machinery. The carpet will then be loaded onto authorized vehicles, guaranteeing transport in full compliance with current regulations.</p>

RECYCLING FACILITIES FOR SYNTHETIC TURF SYSTEMS IN EUROPE

COMPANY	ADDRESS HQ	LOCATION ON MAP	MEMBER OF ESTC	DESCRIPTION
	13-17 Abbotsinch Road FK3 9UX Grangemouth Scotland United Kingdom www.sportexgroup.co.uk		NO	Sportex have established a static plant in central Scotland which not only fully recycles the turf and infill but has agglomeration technology to make recycled plastic kickboards and other innovative heat-bonded products from the turf element thus fully embracing end of life turf to manufacture new products.
	info@turfrecyclers.it T: +39 342 94 99 114 www.turfrecyclers.it		NO	100%Turfrecyclers uses its own mobile recycling system that can effectively recycle synthetic turf fields either on-site or at distributed hubs. The company's recycling process yields several valuable components including clean sand, clean performance infill, and clean turf suitable for reuse or repurposing for sports or landscaping. Additionally, the company produces shaved PE fiber for mechanical recycling. Turfrecyclers also produces machines.
	30 route de La Gare d'Heyrieux 38540 Grenay - France T: +33 (0)4 78 33 50 85 contactrevalgreen.fr www.revalgreen.fr		NO	The synthetic coatings are crushed and screened. The different components are separated by a dry process, to allow their individual recovery. Revalgreen's recycled products include: rolled sand 0.4-1.2mm, SBR aggregates, packaged in big-bags or in bulk, compliant with the standard for use in sports floors.
	1 rue des Alouettes 57660 LEYVILLER T: + 33 (0)6 89 51 79 96 infrasports@orange.fr		NO	The processing unit is based in Creutzwald, France. Currently, the processing capacity is 25 T/hour. In the near future, Infraspports should be able to process more than 100 fields per year. At the moment, the set-up only allows the processing of synthetic turf systems with SBR filling only. By end of 2023, synthetic turf systems with different types of infill e.g. TPE or EPDM will be able to be processed as well.



RECYCLING FACILITIES FOR SYNTHETIC TURF SYSTEMS IN EUROPE

➤ QUESTIONS? CONTACT ESTC



ESTC
40, rue Belliard
B - 1040 Brussels
E: info@estc.info
W: www.estc.info
T: +32 2 880 52 95



➤ DISCLAIMER

The information contained in this document is for information purposes only. You should not rely upon this information as a basis for making any business, legal or any other decisions. Whilst we endeavour to keep the information up to date and correct, ESTC makes no claims of any kind, express or implied about the completeness, accuracy or reliability of the information. Any reliance you place on this information is therefore strictly at your own risk.

This document was published on June 27, 2023 and will be regularly updated. The latest version can be found on the ESTC website www.estc.info/knowledge-center