

# LYFECYCLE TECH FAQs - TWICKENHAM

## 1. What is Lyfecycle?

Lyfecycle is a new solution from British Innovators Polymateria to tackle the global plastic pandemic. At a global level, a staggering 32% of all plastic waste escapes collection systems and ends up in nature. Plastic polluted onto the land makes its way into the oceans over time, contributing to the ocean plastic pollution crisis. In fact, 80% of plastic in our oceans originated on the land.

The Lyfecycle cups showcased at Twickenham during the fixtures on 18-19 June provide an antidote to plastic pollution. While made for recycling, cups will **self-destructing on land within two years leaving no microplastics or toxins behind**. What is left is only an earth-friendly wax that becomes a part of the natural cycle of life.

## 2. Why Lyfecycle?

In the UK alone, we use over 2.5 billion disposable cups each year<sup>1</sup>, and only about 1 in 400 gets recycled. This has a huge number of negative impacts, from causing harm to marine species to reducing the amount of carbon dioxide, which the oceans can absorb. The amount of single-use plastic is increasing rapidly - especially during the last two years of the pandemic.<sup>2</sup>

Lyfecycle packaging solutions give individuals a more easily achievable way to take small actions toward responsible disposal that will have an immediate and global positive impact on the environment. Through collaborative partnerships, awareness building and scientific innovation, Lyfecycle's goal is to ignite action and cause a ripple effect that will solve ocean pollution, and leave the planet in a better place for generations to come.

## 3. What are the cups made of?

Similarly, to conventional plastic - the cups are made of polymers. The key difference is our technology!

---

<sup>1</sup> <https://plasticfreenorthdevon.org/blog/the-disposable-coffee-cup-effect-stopandswap>

<sup>2</sup> <https://www.eea.europa.eu/publications/impacts-of-covid-19-on#:~:text=The%20increase%20in%20e%2Dcommerce%20is%20likely%20to%20have%20led,from%20March%20to%20September%202020.>

#### 4. How does it work?

Our “secret sauce” is added at the point of production, meaning that the cups look and feel exactly like conventional plastic for their entire shelf life. If the plastic escapes into the natural environment and is exposed to natural elements such as sun, air, soil, rain, the self-destructing technology transforms the plastic to an earth-friendly wax. The wax then attracts microorganisms like bacteria and fungi, which safely digest it and return it to nature without harm within two years.

#### 5. Do you have any scientific proof to back up your claims?

The biodegradation process is verified by the British Standards Institution’s BSI PAS 9017:2020 standard for “Biodegradation of polyolefins in an open-air terrestrial environment”. This standard, now adopted in multiple countries, contains rigorous tests to ensure no microplastics or toxic residues are created during the process, and that full biodegradation occurs. All the testing is done independently and test reports issued by ISO & UKAS accredited laboratories.

#### 6. Can cups be recycled?

Yes! We embrace the 3 Rs - reduce, reuse, recycle, but we have added a fourth R - redesign. With end of use at the forefront of our minds, products with Lyfecycle technology are **recyclable** and **biodegradable**.

Cups used at Twickenham can be recycled in line with the regular recycling stream and turned into all manner of objects, from bracelets to benches, household items, and more - the possibilities are limitless!

#### 7. What can you do?

You will play the most important role in our fight against plastic pollution! Around Twickenham, you will find designated bins where you can dispose of Lyfecycle cups after use. After the match is over, the cups will be transformed into one-of-a-kind designer items, which will serve a new purpose.

#### 8. Where can I learn more?

Follow [@lyfecycle](#) on Instagram to stay up to date with the fight against plastic pollution! We regularly do giveaways and partnerships with exciting organisations, as we aim to spread the word about our message. Go to [lyfecycle.com](#) to take action and visit [polymateria.com](#) to learn more about the science behind our work.

\*\*\* Lifecycle in the Media \*\*\*

#### *On our technology*

- National Geographic on launch of PAS 9017:  
<https://www.nationalgeographic.co.uk/environment-and-conservation/2020/11/new-self-destructing-plastic-has-helped-define-a-new-british>
- World Economic Forum announcement of Polymateria as a Tech Pioneer of 2021:  
<https://widgets.weforum.org/techpioneers-2021/polymateria/>
- His Royal Highness Prince Charles supporting Polymateria's technology at COP26:  
[https://www.thesun.co.uk/news/16522059/prince-charles-save-earth/?utm\\_campaign=native\\_share&utm\\_source=sharebar\\_native&utm\\_medium=sharebar\\_native](https://www.thesun.co.uk/news/16522059/prince-charles-save-earth/?utm_campaign=native_share&utm_source=sharebar_native&utm_medium=sharebar_native)
- Forbes article on the back of new scientific proof that plastic transforms into wax:  
<https://www.forbes.com/sites/danieladelorenzo/2021/08/12/reduce-reuse-recycle-plastic-food-product-packaging-needs-a-makeover/?sh=67df28884c8e>
- Forbes on innovations tackling plastic pollution:  
<https://www.forbes.com/sites/sofialottopersio/2022/04/22/how-to-make-plastic-disappear/?sh=212a1300ee8f>
- Imperial College London on recycling announcement:  
<https://www.imperial.ac.uk/news/215813/worlds-first-biodegradable-recyclable-plastic-developed/>

#### *Celebrity/brand endorsements & Lifecycle activations*

- War on plastic pollution in India: <https://www.hindustantimes.com/business/what-if-your-drinking-cup-could-tell-you-its-best-by-date-101635146227568.html>
- Beach clean-up as part of Party For The Planet campaign in Puerto Rico:  
<https://www.sanjuandaily.com/post/beach-cleanup-features-biodegradable-cups>

#### *On regional news & investment rounds*

- Bloomberg article on progress in Asia:  
<https://www.bloomberg.com/news/articles/2021-09-23/british-startup-turning-plastic-waste-into-wax-wins-fans-in-asia>
- Imperial on investment round  
<https://www.imperial.ac.uk/news/230675/biodegradable-plastics-startup-polymateria-secures-100/>

#### *In-depth technical review*

- Technical piece in Materials World: <https://www.iom3.org/resource/twinning-with-a-biodegradable-and-recyclable-plastic-film.html>
- Technical comment piece from Polymateria on need to tackle mismanaged plastic waste: <https://www.icevirtuallibrary.com/doi/full/10.1680/jgrma.19.00044>