ADIDAS BY STELLA MCCARTNEY
BIOFABRIC TENNIS DRESS

The adidas by Stella McCartney Biofabric Tennis Dress is a first of its kind proof-of-concept performance garment created in collaboration with Bolt Threads - a specialist in bioengineered sustainable fibers and materials - a representation of real world change possible via an open-source approach to innovation.

Born out of a shared vision for more sustainable fibers that are also beautiful, the Biofabric Tennis Dress is both made with and for nature. It is created with the ambition that it can be broken down at a molecular level and returned to its natural state. The dress is made with cellulose blended yarn and Microsilk™, a protein-based material that is made with renewable ingredients, like water, sugar, and yeast, with the ability to fully biodegrade at the end of its life.

BIOFABRIC TENNIS DRESS PROCESS

1 MADE FROM NATURE

Bioengineers look to nature and study natural processes—such as the way spiders produce silk fibres—to inform the creation process within the Bolt Threads laboratory.

2 BIOENGINEERING

Bioengineers create proteins that are inspired by nature and its processes. These are created by adding genes with desired properties into yeast potentially reducing the need for textile finishing chemicals later in the process.

3 FERMENTATION

This bioengineered protein is produced in large quantities via fermentation using raw materials such as yeast, sugar and water.

4 CREATING THE FIBRES

The resulting silk proteins are extracted and spun into fibres before being woven—like any other yarn—into material used for garments.

5 READY FOR DESIGN

The material is then used in the creation of apparel, combined with performance and design expertise with adidas and Stella McCartney to create the Biofabric Tennis dress. When disposed, the protein-based material has the ability to biodegrade at end-of-life.

PRODUCT

The adidas by Stella McCartney Biofabric Tennis Dress showcases the potential for a more sustainable future in fashion and sport.