



# 37.5® Technology is Sustainable Thermoregulation

37.5® Technology is the only thermoregulating technology to combine natural active particles plus enhanced biodegradation and recycled yarn options. So, you do not need to choose between sustainability and performance.



The amount of waste from discarded textiles like clothing and bedding is the highest it's ever been.

- In the US, only 15% of this waste is recycled, and textiles make up 8% of all landfill waste.
- That's 21 billion lbs. (9 billion kgs.) of waste, or 70 lbs. (31 kgs.) per person, every year.<sup>1</sup>
- In Europe, over half of all discarded garments end up in landfills or burned as waste.<sup>2</sup>

There are very few end-of-life recycling options for textile products. As it can take many centuries for synthetic textiles to biodegrade in a landfill, an enhancing technology is needed to accelerate this natural breakdown cycle and reduce the burden of plastic pollution.

Unlike other synthetic yarns that will sit unchanged in landfills for centuries, 37.5® yarns with enhanced biodegradation break down to naturally occurring materials over decades.



<sup>1</sup>Council for Textile Recycling - [weardonaterecycle.org](http://weardonaterecycle.org)

<sup>2</sup>Based on data available from the European Parliamentary Research Service, available at: [https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/633143/EPRS\\_BRI\(2019\)633143\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/633143/EPRS_BRI(2019)633143_EN.pdf)

# Enhanced Biodegradation

Without affecting the comfort and performance of 37.5® Technology, our yarns are now also engineered to biodegrade at enhanced rates when placed in landfills. Third party laboratory testing under ASTM D5511 in an accelerated landfill environment shows almost complete breakdown of 37.5® staple fiber to natural materials in two years.<sup>3</sup> In actual landfills, 37.5® yarns will now break down over decades, not centuries.<sup>4</sup>

## 37.5® yarns now include an additive that:

- Is permanently embedded in the synthetic fiber
- Enhances the ability of microorganisms in landfills to bind to and break down the fibers
- Speeds up the natural degradation process in landfills, but not during use or storage

Importantly, the additive does not cause 37.5® fibers to simply fracture into smaller pieces (microplastics) that then remain unchanged. The fibers are actually converted at a molecular level to naturally occurring byproducts like those generated by other waste, such as paper or food scraps. Modern, more efficient landfills are increasingly able to capture these gaseous byproducts as a renewable energy source.



## The Direction of Goodness

We recognize there is no easy answer to the problems created by textile waste. But we are confident our decision to enhance biodegradation of 37.5® fibers is an important first step – for both our industry, as well as our planet.

Cocona Labs continues to evaluate new sustainable technologies and is committed to embracing those that move our products in the direction of goodness.



For more info contact us at [info@cocona.com](mailto:info@cocona.com)  
or visit our website at [thirtysevenfive.com](https://thirtysevenfive.com)



<sup>3</sup>74% biodegradation of 37.5 staple fiber in 726 days, reducing to the 37.5 volcanic mineral, titanium dioxide, carbon dioxide, methane, and biomass. The stated rate and extent of degradation does not mean that the material will continue to degrade. For more testing information, visit [thirtysevenfive.com/sustainability](https://thirtysevenfive.com/sustainability).

<sup>4</sup>37.5 yarns are projected to break down 50-80% over the productive life of the average U.S. landfill (80-100 years). The stated rate and extent of biodegradation will vary by landfill and fabric type.