Sustainability Brochure
Dress

What's the impact:
Dyeing with Twine vs. current industry processes

A life cycle analysis (LCA) assesses the environmental impacts and attributes associated with all the life cycle stages of a commercial product.

This LCA compares Twine's TS-1800 digital thread and yarn dyeing machine with current industry processes - from the moment the raw materials are excavated, up until the polyester thread is dyed.

This LCA was made in collaboration with Made2Flow, with a 3rd party validation by Quantis.

	Functional Unit	Benchmark
Thread	White 100% polyester threads	White 100% polyester threads
	243 Denier	243 Denier
Machine location	Turkey	Turkey
Dyeing color	Navy, Pantone 19-4030	Navy, Pantone 19-4030
Quantity	0.45 Kgs	1.2 Kgs
Boundary	Cradle - Dyed Thread	Cradle - Dyed Thread

Results

Avoided

- **16.04 kg of CO^2**
- **Benchmark: 29.21 kg**
- **Savings: 45.07%**
- Greenhouse gases absorb and emit infrared radiation in the Earth's wavelength range
- Measured in CO^2 equivalent, it includes gases such as carbon dioxide, nitrous oxide & methane

101 km
driven by car

- **0.72 m^3 of water**
- **Benchmark: 1.73 m^3**
- **Savings: 58.37%**
- All water used in the direct process or sub-processes (such as energy generation)

289 days
of drinking water

- **73.61 MJ of energy**
- **Benchmark: 93.06 MJ**
- **Savings: 21.24%**
- The use of energy across all processes and sub-processes includes electricity and heat sources. It's measured in Megajoule (MJ)

15 hours
of watching Netflix

- **0.14 m^2 of land use**
- **Benchmark: 1.33 m^2**
- **Savings: 57.01%**
- The environmental impacts of occupying, Reshaping, and managing land for human purposes. It is measured in square meters (m^2)

3.06 paper
sheets
of a size A4

About Twine

Twine's technology & solution presents a waterless, sustainable thread and yarn dyeing system, which can reduce time to market, and streamline inventory management while enabling an unlimited color palette.

With our zero water use technology, Twine's TS-1800 presents a sustainable thread and yarn dyeing system that addresses the serious water pollution and environmental issues that have been a part of the dyeing industry for decades.

Be Fast. Be Creative. Be Sustainable.