

Carbon Reduction Plan (SME Version)

Reporting Period: 2025-2026

Commitment: Shieldical Limited is committed to achieving Net Zero by 2050 in alignment with the NHS Net Zero Supplier Roadmap.

1. Baseline Emissions Footprint

As an SME, we are currently establishing our formal baseline. However, our core business model is built on carbon reduction.

- **Scope 1 & 2:** Our office/warehouse operations focus on low energy consumption and LED lighting.
- **Scope 3 (Supply Chain):** This is where we make the biggest impact. By providing reusable gowns, we significantly reduce the Scope 3 emissions of our NHS customers.

2. Carbon Reduction Projects (Key Initiatives)

A. Circular Economy (Product Impact)

The most significant carbon reduction is achieved through our product's lifecycle:

- **Waste Reduction:** One of our reusable gowns replaces at least **75 single-use disposable gowns**. This prevents approximately **40-60kg of clinical waste** per gown lifecycle from entering incineration or landfill.
- **Material Efficiency:** Our high-performance microfibre requires less raw material per use than the cumulative material needed for 75 disposable SMS gowns.



B. Supply Chain & Logistics

- **Consolidated Shipping:** We work with logistics partners to consolidate shipments, reducing the number of delivery vehicle movements.
- **Packaging Optimization:** We have eliminated individual plastic wrapping. Gowns are shipped in bulk using reusable laundry bags or recyclable cardboard, reducing plastic waste.

C. Maintenance & Longevity

- **Validated Durability:** By ensuring our gowns withstand **75+ wash cycles** without losing barrier integrity (EN 13795), we extend the product life, further amortizing the initial carbon cost of production.

3. Future Goals (2025-2027)

- **Evergreen Assessment:** We aim to complete the NHS Evergreen Supplier Assessment by [日期] to further transparency.
- **Energy Efficiency:** We are reviewing our manufacturing partners to ensure they utilize renewable energy sources or heat-recovery systems in the fabric dyeing process.

Approval: Approved by the Board of Directors.

Signed:  (Dr Haoyu Wang, Director)

Date: 01/1/2026

Review cycle: Review at least annually.