

## Frequently Asked Questions (FAQs): CellScrew®

### What growth surface areas are provided with the CellScrew® and what volume of medium is required for the proper usage of the CellScrew®?

The CellScrew® is launched in two different sizes. The CellScrew® 10k offers 10,000 cm<sup>2</sup> of growth surface area and is supposed to be used with 1000 mL of cell culture medium. The CellScrew® 6k offers 6,000 cm<sup>2</sup> of growth surface area and is supposed to be used with 600 mL of cell culture medium. Individual sizes are available on request, please contact us via [sales@lifesciencegroup.co.uk](mailto:sales@lifesciencegroup.co.uk) for more information.

### What are the process characteristics of the CellScrew®?

We characterized the system in regards of mixing time and oxygen transfer coefficient. Please contact us via [sales@lifesciencegroup.co.uk](mailto:sales@lifesciencegroup.co.uk) to receive our application note.

### Can all adherent cells be cultivated in the CellScrew®?

The CellScrew® was tested with multiple different cell lines. From mouse fibroblasts (L-929) over human kidney cells (HEK-293) to stem cells (human mesenchymal stromal cells). Adhesion rates, growth rates and final cell densities comparable to or better than those known for standard polystyrene were observed.

### Is the carbon footprint of CellScrew® really smaller in comparison to standard cell culture devices?

Yes! The CellScrew® is made from polylactic acid (PLA) which is derived by the polymerization of plant based lactic acid. With our additive manufacturing process, we can produce the same growth surface area with up to 90 % less material compared to injection moulded culture systems. To completely cover the extent the carbon footprint of the CellScrew®, we currently work on a life cycle analysis.

### How is the CellScrew® correctly handled?

The CellScrew® is handled just as a regular roller bottle. For a clear understanding you find an instructional video provided on the Green Elephant Biotech homepage.

### Can I order other geometries made from renewable polymer material from Green Elephant Biotech?

We offer product development. Different challenges necessitate different approaches, and we are happy to help you find renewable solutions for the future. Please contact us via [sales@lifesciencegroup.co.uk](mailto:sales@lifesciencegroup.co.uk) for more information.

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