CiCLO® Sustainable Textile Technology

“Made to last” shouldn’t mean “here forever”

Tension Fabric Displays are now available with 7.35 oz CiCLO® Biodegradable Display Fabric. Same print quality. Same 24-hour production[1]. Same price structure you already know — with a fabric engineered to break down instead of persisting for centuries.

What biodegrades, and what’s built to be reused

We’ll be specific about this, because most environmental claims in signage aren’t.

The CiCLO® biodegradation data applies to the display fabric.
That’s the printed sleeve — the largest component of the sign by surface area, and the part most likely to shed fibers during its working life or end up in landfill at end of life.

It does not apply to the rest of the media wall.
The anodised aluminum frame, zipper and sewing thread are conventional materials and we make no biodegradation claim about them. The aluminum frame is designed to be reused across many campaigns, and is recyclable through standard metal recycling.

In short: **the fabric is biodegradable, the frame is reusable.** The sleeve is engineered to break down if it ends up in the environment; the frame is built to be kept and reused for years. Two different environmental strategies for two different components — and both are claims we can substantiate.

What is CiCLO® technology?

CiCLO® is a nature-inspired additive blended into polyester at the very start of the fiber-making process — not a coating or an after-treatment. It’s designed to reduce the impact of microplastic fiber pollution: if the fibers ever end up in the environment, CiCLO® technology allows them to biodegrade more like natural fibers, while the fabric keeps the durability and print performance you expect.

How it works
During melt extrusion, the CiCLO® additive creates countless microscopic biodegradable points throughout the plastic matrix. These give naturally occurring microbes something to attach to and break down — much as they would with wool or cotton. When a fabric sign sheds fibers, or eventually reaches end of life in landfill, fibers made with CiCLO® technology don’t persist indefinitely the way untreated synthetics do.

Your sign will not degrade in use.
CiCLO® technology only activates where biodegradation naturally occurs — it needs microbes, moisture and time together. Fabrics won’t break down on a warehouse shelf, in transit, while on display, during cleaning or in storage. Exactly like fabrics made from natural fibers.

Key benefits

92% biodegradation of the fabric in sea water over 592 days – around 1.6 years – versus 3% for comparable untreated fiber. Measured by independent laboratory testing under controlled conditions.[2]

91% biodegradation of the fabric in landfill over 1,278 days – around 3.5 years – versus 6% for comparable untreated fiber. Measured by independent laboratory testing under controlled conditions.[2]

Built-in insurance against fugitive synthetic textile pollution – for the fibers that inevitably shed during a sign's working life.

No performance trade-off on print or durability – print quality, tensile strength, dimensional stability, colorfastness and crease resistance are unchanged from our premium 7.35 oz display fabric.

ECO PASSPORT by OEKO-TEX® certified chemistry – confirming the CiCLO® additive itself is safe and ecologically responsible.

Independently verified – by third-party laboratories using internationally recognised ISO and ASTM test methods, including ISO 19679, ISO 15985 and ISO 17556.

Printed in the USA

The base fabric is sourced from OEKO-TEX® Standard 100 certified mills.



Frequently asked questions

01. What is CiCLO® technology?

A patented additive integrated into polyester fibres during manufacturing. It creates billions of microscopic biodegradable points in the fiber, allowing naturally occurring microbes to break the material down over time, much as they do with natural fibers.

02. Which parts of the product are biodegradable?

The printed display fabric — that's what the CiCLO® data covers, and it's the largest component by surface area. The aluminum frame, zipper and thread are conventional materials, and we make no biodegradation claim about them. The frame is designed to be reused across campaigns and is recyclable through standard metal recycling, so the best environmental outcome is to keep your frame and reprint the sleeve.

03. Will CiCLO® fabric perform differently, or wear out faster?

Print quality, tensile strength, dimensional stability, colorfastness and hand-feel are unchanged. The one practical difference: CiCLO® fabric is slightly less elastic than our standard display fabric, so the sleeve can feel a little firmer to fit over the frame on installation. It fits the same frames to the same sizes — expect a firmer pull, not a different product. Durability and working life are unaffected. Biodegradation only occurs with sustained exposure to moisture and microorganisms, which doesn't happen during normal use, display, cleaning or storage.

04. Is CiCLO® fabric safe and non-toxic?

Yes. The chemistry is ECO PASSPORT by OEKO-TEX® certified, REACH compliant, and independently tested as non-toxic to plant, marine and aquatic life.

05. How long does it take to biodegrade?

There's no single fixed number, and any supplier who gives you one is guessing — real-world rates depend on temperature, moisture and microbial activity. Under controlled laboratory conditions, CiCLO® fabric reached over 90% biodegradation within roughly 950–1,360 days, or two and a half to just under four years. The meaningful comparison is against untreated polyester, which showed only 0–6% biodegradation over the same period.

06. Do the printing inks biodegrade?

Two separate questions here, and they have different answers. **Does the print prevent the fabric from biodegrading?** No finish or chemistry tested to date has been found to inhibit biodegradation of CiCLO® fibre. **Do the inks themselves biodegrade?** We make no biodegradation claim about our inks. We print with water-based dye-sublimation inks, which contain synthetic dyes. The claim on this product is about the fabric.

07. How should I dispose of an old CiCLO® fabric sign?

CiCLO® fabric is biodegradable, not compostable — these are different standards. It should not go in a compost bin or a green/FOGO bin; commercial composting facilities don't accept textiles. Where a specialised textile recovery program is available to you, reuse or recovery is the best outcome. Otherwise general waste is the right path: CiCLO® is specifically designed to biodegrade under the conditions found in a biologically active landfill, unlike untreated synthetics which persist for centuries. Keep the aluminum frame and reprint the sleeve — that's the lowest-impact option by a wide margin.

Frequently asked questions

08. Is CiCLO® fabric made in America?

Printing, sewing and finishing happen in the USA, using base fabric sourced from OEKO-TEX® Standard 100 certified mills overseas.

09. Which products are available with CiCLO® technology, and what's next?

We're launching with Tension Fabric Displays. More of our fabric signage products are in development and we'll add them to the CiCLO® range as they're validated.

10. What happens if a fabric sign ends up as litter or in the ocean?

This is the problem CiCLO® technology is designed to address. Untreated synthetic fabric that ends up as litter or marine debris can persist for centuries, shedding microplastics the whole time. CiCLO®-enhanced fabric is engineered to biodegrade under those conditions instead – independent laboratory testing showed 92% biodegradation in sea water within 592 days, versus 3% for comparable untreated fiber.[2] It's still best practice to reuse, recycle or dispose of signage responsibly. CiCLO® is the safety net, not the plan.

11. Is CiCLO® a marketing claim, or is it independently proven?

Independently proven. The biodegradation data comes from accredited third-party laboratories using internationally recognised test methods – ISO 19679 (sea water), ISO 15985 (landfill) and ISO 17556 (soil) – not from CiCLO® themselves. Two separate things you can verify: **the chemistry** – ask us for the ECO PASSPORT by OEKO-TEX® certificate number and check it yourself at oeko-tex.com/en/label-check; and **the biodegradation studies** – these sit with CiCLO®'s owner, Intrinsic Advanced Materials, and are published at ciclotextiles.com. If you need study detail for a tender or sustainability report, contact us and we'll route the request.

DISCLAIMER

[1] *24 hour production available for certain sizes and quantities.*

[2] *Biodegradation studies are conducted and validated by independent third-party laboratories using internationally recognised ASTM and ISO test methods, and relate to the display fabric only. Laboratory studies represent controlled conditions; the actual rate and extent of biodegradation depends on real-world environmental conditions. The stated rate and extent of degradation do not mean the product will continue to degrade indefinitely.*

The CiCLO® logo is a trademark of Intrinsic Advanced Materials, LLC. Learn more at www.ciclotextiles.com

Discover the technology behind CiCLO and learn more about its sustainability benefits.