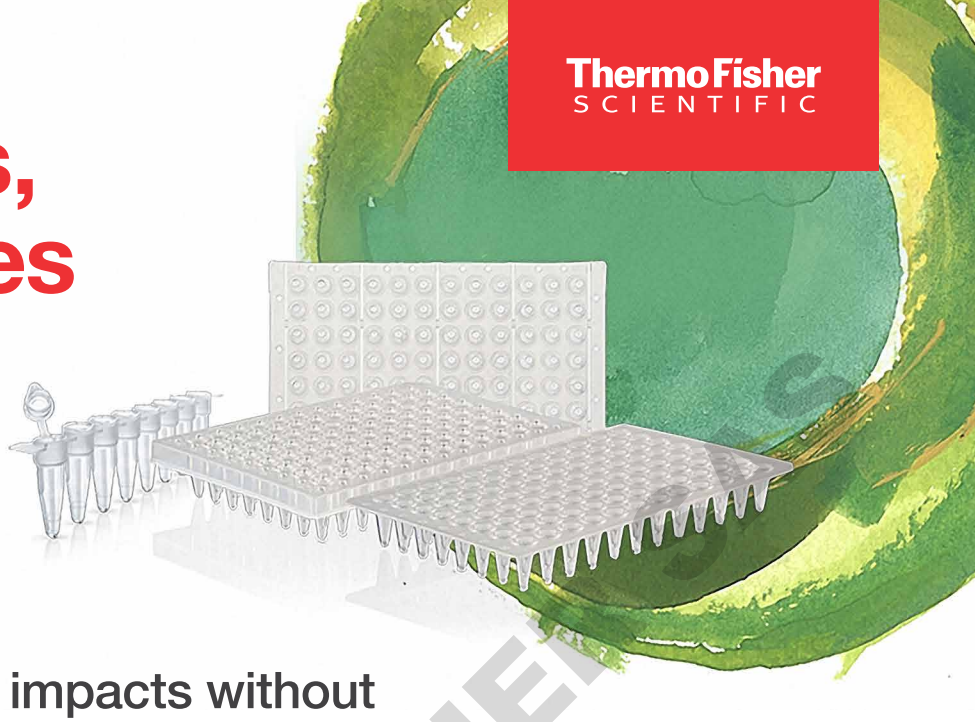
PCR Plastics, Sustain Series



Greener by design™

Molecular biology

Reducing environmental impacts without sacrificing performance or quality

Introducing the Thermo Scientific™ PCR Plastics, Sustain™ Series, bringing together precision, reliability, and sustainability. These PCR plastics go beyond providing accurate and reproducible PCR data; they represent our commitment to integrating more sustainable practices into our manufacturing processes, without compromising on product quality or performance. Our commitment to developing products with the environment in mind helps us to reduce the collective carbon footprint of the life sciences.

Sustain Series PCR plastics signify a breakthrough in our PCR and quantitative PCR (qPCR) product offering. These new PCR consumables are manufactured under ISO 9001 guidelines within a Class 100,000 cleanroom from a biobased medical-grade virgin polypropylene that is chemically and molecularly identical to existing Thermo Scientific™ PCR plastics. These products are supported by certification from the globally recognized International Sustainability and Carbon Certification (ISCC) system. This greener approach is equivalent to 1.96x* lower carbon dioxide equivalent (CO_2e) emissions per kg of biobased polypropylene resin compared to traditional fossil fuel–based polypropylene resin.

By choosing Sustain Series PCR plastics, researchers can get accurate, reproducible results while contributing to a greener future and demonstrating a commitment to more responsible sourcing of laboratory plastics.

Key attributes:

- 1.96x lower CO_2e emissions per kg of biobased polypropylene resin compared to equivalent products manufactured from traditional fossil fuel–based polypropylene resin**
- Uniform, ultra-thin walls enable maximum and consistent heat transfer for equally high performance for every sample
- Each well is visually inspected and electrostatically tested for defects and contaminants, and every lot is run through a PCR cycling test to evaluate sealing
- Manufactured from second-generation bio-circular feedstocks that are chemically and molecularly identical to existing Thermo Scientific PCR plastics
- Products are mass balance chain-of-custody certified by the globally recognized ISCC system
- Certified free of DNase, RNase, human DNA, and PCR inhibitors to ensure the accuracy and reproducibility of PCR results
- Compatible with Applied Biosystems™ thermal cyclers and a wide range of other popular instruments
- Choose from a variety of formats to meet your specific PCR or qPCR needs, including 96-well plates, 384-well plates, and strip tubes with attached or separate caps

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Sustain Series PCR plastics have 1.96x lower CO_2e emissions per kg compared to equivalent products manufactured from traditional fossil fuel–based polypropylene resins**

Comparison of CO_2e emissions between Sustain Series PCR plastics with biobased resin and PCR plastics with fossil fuel–based resins.

Description	Thermo Scientific PCR Plastics Cat. No.	Fossil fuel–based resin emissions ($kgCO_2e$)**	Thermo Scientific PCR Plastics, Sustain Series Cat. No.	Biobased resin emissions ($kgCO_2e$)**	Resin emissions difference ($kgCO_2e$)
PCR plates					
96-Well PCR Plate, Non-Skirted	AB0600	1.01	AB0600SS	–0.97	–1.99
96-Well PCR Plate, Low Profile, Non-Skirted	AB0700	0.91	AB0700SS	–0.87	–1.78
96-Well PCR Plate, Low Profile, Full Skirted	AB0800	1.28	AB0800SS	–1.23	–2.51
96-Well PCR Plate, Segmented, Semi-Skirted	AB0900	1.19	AB0900SS	–1.14	–2.33
96-Well PCR Plate, Semi-Skirted, Flat Deck	AB1400	1.13	AB1400SS	–1.09	–2.22
384-Well PCR Plate, Full Skirted	AB1384	2.62	AB1384SS	–2.51	–5.13
PCR strip tubes and caps—packaged together					
Low Profile 8-Strip PCR Tubes w/ Domed Caps	AB0772	0.47	AB0772SS	–0.45	–0.91
Low Profile 8-Strip PCR Tubes w/ Domed Caps	AB0775	0.97	AB0775SS	–0.93	–1.90
Low Profile 8-Strip PCR Tubes w/ Flat Caps	AB0773	0.47	AB0773SS	–0.45	–0.91
Low Profile 8-Strip PCR Tubes w/ Flat Caps	AB0776	0.97	AB0776SS	–0.93	–1.90
Low Profile 8-Strip PCR Tubes w/ Ultra Clear Caps	AB1770	0.97	AB1770SS	–0.93	–1.90
8-Strip PCR Tubes w/ Domed Caps	AB0451	0.78	AB0451SS	–0.74	–1.52
8-Strip PCR Tubes w/ Domed Caps	AB0266	1.62	AB0266SS	–1.55	–3.17
8-Strip PCR Tubes w/ Flat Caps	AB1182	1.62	AB1182SS	–1.55	–3.17
8-Strip PCR Tubes w/ Ultra Clear Caps for qPCR	AB1183	0.78	AB1183SS	–0.74	–1.52
PCR strip tubes and caps—packaged separately					
Low Profile 8-Strip PCR Tubes	AB0771	0.31	AB0771SS	–0.29	–0.60
8-Strip PCR Tubes	AB0452	0.62	AB0452SS	–0.59	–1.21
8-Strip PCR Tubes	AB0264	1.28	AB0264SS	–1.23	–2.52
8-Strip Domed Caps	AB0386	0.16	AB0386SS	–0.15	–0.31
8-Strip Domed Caps	AB0265	0.33	AB0265SS	–0.32	–0.65
8-Strip Flat Caps	AB0783	0.16	AB0783SS	–0.15	–0.31
8-Strip Flat Caps	AB0784	0.33	AB0784SS	–0.32	–0.65
8-Strip Ultra Clear Caps for qPCR	AB0866	0.16	AB0866SS	-0.15	–0.31
PCR strip tubes with attached caps					
8-Strip PCR Tubes with Attached Flat Caps	AB2000	2.22	AB2000SS	–2.13	–4.36
8-Strip PCR Tubes with Attached Ultra Clear Caps	AB2005	2.22	AB2005SS	–2.13	–4.36

* As compared to the equivalent fossil fuel–derived polypropylene resin emissions, cradle to gate ($kgCO_2e$ per kg).

** Product carbon footprint data provided by the manufacturer of the biobased polypropylene resin. Fossil fuel–based polypropylene has a cradle-to-gate footprint of 1.75 $kgCO_2e$ per kg of resin. Biobased polypropylene has a footprint of –1.68 $kgCO_2e$ per kg of resin. This includes cradle-to-gate fossil fuel–based emissions (0.96 $kgCO_2e$ per kg), biogenic emissions (0.77 $kgCO_2e$ per kg) and biogenic removals (–3.41 $kgCO_2e$ per kg). ISCC PLUS-certified biobased resin emissions, cradle to gate ($kgCO_2e$ per kg).

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Frequently asked questions

What are biobased plastics?

Biobased plastics are fully or partly made from biological raw materials, as opposed to the petroleum or fossil fuel used in conventional plastics.

What are the benefits of purchasing biobased plastics?

Biobased plastic products from Thermo Fisher Scientific are indistinguishable from traditional fossil fuel–based plastics and have a lower carbon footprint without sacrificing performance. Additionally, there is no need for revalidation or retesting, as the product is chemically and molecularly identical to the existing fossil fuel–based version.

Do plastics with biobased content allocated on a mass balance basis impact performance?

Incorporation of biobased and fossil fuel–based resins occurs at the monomer level, which helps ensure that the properties and characteristics of the biobased plastics remain consistent with traditional fossil fuel–based plastics. Plastics with biobased content by mass balance reduce reliance on fossil fuel–based resources while maintaining desired performance.

What are “bio-circular” feedstocks?

Bio-circular feedstocks, a feedstock category defined by the International Sustainability and Carbon Certification (ISCC) certification system, refer to materials that are considered waste or processing residue at the beginning of the supply chain that are not landfilled or energetically used, but instead reused, further used, or recycled in a loop without dropping out of the economy. These feedstocks can be used to make biobased plastics without sacrificing performance and have a lower environmental footprint compared to virgin fossil fuel–based feedstocks.

Who is the ISCC and what is ISCC PLUS?

The ISCC is an independent initiative and globally recognized certification system supporting more sustainable, traceable, and deforestation-free supply chains. It sets standards and provides certification for various sectors, including agriculture, food, feed, chemicals, and biofuels. The ISCC aims to promote more sustainable production and trade while addressing environmental and social aspects.

ISCC PLUS certification is one of the certification schemes under the ISCC certification system. One focus area under this scheme is on sustainability and traceability aspects of biomass-based products, such as biofuels, bioplastics, and biochemicals. ISCC PLUS certification verifies chain of custody, traceability throughout the supply chain, and compliance with sustainability criteria through independent third-party certification. It provides assurance to customers and stakeholders that the certified products meet strict sustainability requirements.

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ISCC International Sustainability & Carbon Certification



Ordering information

Description	Quantity	Cat. No.
PCR plates		
96-Well PCR Plate, Non-Skirted, Sustain Series	25 plates	AB0600SS
96-Well PCR Plate, Low Profile, Non-Skirted, Sustain Series	25 plates	AB0700SS
96-Well PCR Plate, Low Profile, Full Skirted, Sustain Series	25 plates	AB0800SS
96-Well PCR Plate, Segmented, Semi-Skirted, Sustain Series	25 plates	AB0900SS
96-Well PCR Plate, Semi-Skirted, Flat Deck, Sustain Series	25 plates	AB1400SS
384-Well PCR Plate, Full Skirted, Sustain Series	50 plates	AB1384SS
PCR strip tubes and caps—packaged together		
Low Profile 8-Strip PCR Tubes w/ Domed Caps, Sustain Series	120 tubes/caps	AB0772SS
Low Profile 8-Strip PCR Tubes w/ Domed Caps, Sustain Series	250 tubes/caps	AB0775SS
Low Profile 8-Strip PCR Tubes w/ Flat Caps, Sustain Series	120 tubes/caps	AB0773SS
Low Profile 8-Strip PCR Tubes w/ Flat Caps, Sustain Series	250 tubes/caps	AB0776SS
Low Profile 8-Strip PCR Tubes w/ Ultra Clear Caps for qPCR, Sustain Series	250 tubes/caps	AB1770SS
8-Strip PCR Tubes w/ Domed Caps, Sustain Series	120 tubes/caps	AB0451SS
8-Strip PCR Tubes w/ Domed Caps, Sustain Series	250 tubes/caps	AB0266SS
8-Strip PCR Tubes w/ Flat Caps, Sustain Series	250 tubes/caps	AB1182SS
8-Strip PCR Tubes w/ Ultra Clear Caps for qPCR, Sustain Series	120 tubes/caps	AB1183SS
PCR strip tubes and caps—packaged separately		
Low Profile 8-Strip PCR Tubes, Sustain Series	120 tubes	AB0771SS
8-Strip PCR Tubes, Sustain Series	120 tubes	AB0452SS
8-Strip PCR Tubes, Sustain Series	250 tubes	AB0264SS
8-Strip Domed Caps, Sustain Series	120 caps	AB0386SS
8-Strip Domed Caps, Sustain Series	250 caps	AB0265SS
8-Strip Flat Caps, Sustain Series	120 caps	AB0783SS
8-Strip Flat Caps, Sustain Series	250 caps	AB0784SS
8-Strip Ultra Clear Caps for qPCR, Sustain Series	120 caps	AB0866SS
PCR strip tubes with attached caps		
8-Strip PCR Tubes with Attached Flat Caps, Sustain Series	250 tubes	AB2000SS
8-Strip PCR Tubes with Attached Ultra Clear Caps for qPCR, Sustain Series	250 tubes	AB2005SS

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Learn more at **thermofisher.com/sustainplastics**

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