

B I O p l a s t i c s

EXTREME UNIFORM
(q) PCR PLASTICS



www.bioplastics.com



BIOplastics BV

BIOplastics BV is an independent company located in Landgraaf, a city in the south of the Netherlands, Europe. We have subsidiaries in the Durham NC, USA and Beijing China.

BIOplastics BV designs and manufactures products from polymer plastics and acrylics materials, for use in the (molecular biology) laboratory field. These state-of-the-art products have distinguishing quality features and offer great added value.

BIOplastics products are marketed and sold through a worldwide selected network of distributors and resellers. They use technical arguments and a high level of service and support to build a long-term relationship between themselves and the customers, based on mutual trust and confidence.

In order to learn who your local distributor is, contact BIOplastics, or look under the "Local Distributor" header on the back page of this brochure. If there is no local distribution partner available in your area, feel free to contact us directly for samples, technical information or orders.

Thank you for the interest in our company, and our products!



BIOplastics International Headquarters
Landgraaf, The Netherlands (Europe).

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Icon Legend

	Optical Clear Area This product has the following optical clear area ... mm ²
	Cuttable This product can be cut in a desired size
	Low Profile This product has a low profile. The height is just exceeding the thermal block, thus improving the evaporation characteristics
	High Profile This product has a standard, high profile.
	Fully skirted This plate is fully skirted, and can be used in robotic applications
	Semi skirted This plate is semi skirted, and can be used in robotic applications
	Sub skirted This plate has an elevated skirt, and is specifically compatible with ABI cyclers.
	Non skirted This plate has no skirt
	Frosted This product has a frosted texture

Some of the products in this brochure might not be available at the time of release, but will be in the very near future.

BIOplastics (EU) Extreme Uniform Products

The BIOplastics (EU) Extreme Uniformity range of PCR disposables offers many unique features that distinguish it from any other comparable product in this market segment. It is truly the Gold Standard for PCR disposables.

BIOplastics takes pride in designing, developing and manufacturing EU products at the highest level. Since we are not just a plastics disposables manufacturer, but also molecular biologists ourselves, we are aware of the demands of the applications in which our products are used. It is our driving force to make the most innovative and highest possible quality products, and solving our customers' PCR problems.

The Raw Material

Our injection moulders have chosen the highest medical grades of virgin polypropylene (PP), preventing metals, or other contaminants influencing your biological experiments, to be part of the end product. In contrast to other manufacturers, we absolutely refuse to compromise on the quality of the used raw materials for our PCR disposables, since we do not want to bring any risk to our customers' end-results.

BIOplastics EU products are manufactured with a fine, specially



balanced blend of polypropylenes, instead of using the standard type PP only. This results in tubes, strips and plates that exhibit a perfect balance between transparency, softness, robustness, anti-static characteristics, no sticky DNA, RNA characteristics and gas tightness. Next to that we are using HTC* (high thermal conductive) material to achieve fast and proper thermal transfer. Perhaps the most noticeable effect is the ease of handling of EU products. Opening and closing can be done again and again without special tools or painful fingertips. Tubes, strips and plates are no longer brittle and easy to break when squeezed fiercely. *see page

The anti-static properties of the material allow pipetted drops of liquid to roll down to the bottom of the tube, without the need for centrifugation.

- **High Thermal Conductive Polypropylene**
- **Special blends**
- **Easy to handle**
- **Anti-static, no centrifugation required**

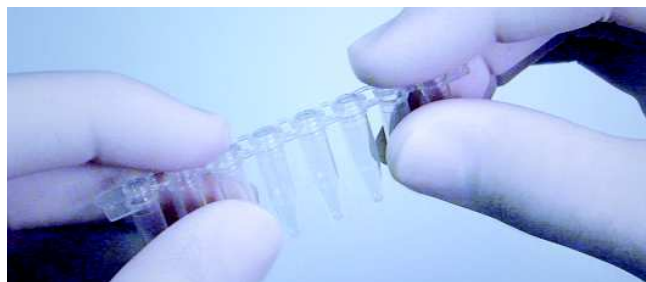
The Art of Injection Moulding

To injection mould a perfect product, a perfectly fine-tuned mould is essential. The fine-tuning (i.e. the optimization of physical, chemical and mechanical parameters) of a mould is a pure art in itself. It involves finding the trade-off between the injection temperature of the PP, the temperatures of the mould itself during the process of PP solidification, and the design, production and positioning of the mould compartments that form the final product. BIOplastics has superior in-house expertise to fine-tune moulds precise and effectively, resulting in an excellent and superior disposable.

To get a product with the highest possible uniformity, a low-cavity mould is a necessity. Low cavity implies that only a few or just one product is moulded per PP injection. This BIOplastics procedure results in batches with exactly the same specifications. It takes more time to manufacture this way, and that is why most other manufacturers choose less accurate multi-cavity moulds. It is obvious that the final products that are manufactured with multi-cavity moulds differ heavily in uniformity and quality.

All EU products are produced under no hands-on conditions, to ensure the absence of detectable DNA, RNA, their breakdown enzymes, and pyrogens. It is not necessary to use mould-releasing agents to release products from their template shape, because the moulds are manufactured with the highest precision.

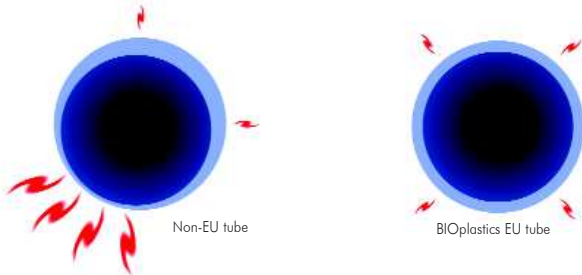
- **Extremely fine-tuned moulds and injection moulding machines**
- **Low-cavity moulds**
- **No detectable DNA, RNA, DNase, RNase, metal and pyrogens**
- **No mould releasing agents**





Wall-Uniformity & Evaporation Grades

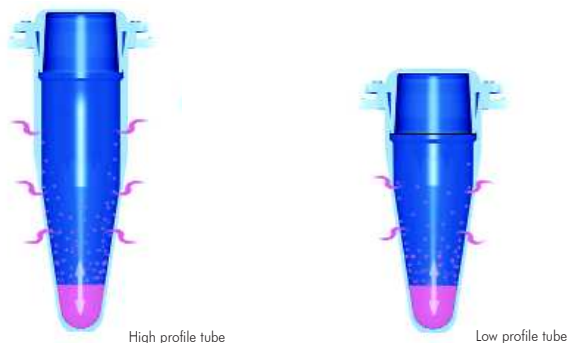
Uniform wall thickness is a necessity to ensure accurate temperature transfer across the tube-wall barrier, thus providing an even and very precise cycling reaction within the sample.



In contrast with non-uniform tubes, strips or plates, the evaporation grade in EU products has been decreased dramatically. One of the main factors of influence on the evaporation, besides the cap-closure, is the non-uniformity of the thin-wall, since PP is not fully gas-tight. High evaporation effects the concentrations of the salts in the sample. This can influence the reaction events, even preventing it from being successful. BIOplastics guarantees its thin-wall tubes and strips to have an average wall thickness of 0.25 mm within narrow boundaries (± 0.05 mm), within individual tubes, as well as between different tubes and tube-strips. For EU plates this average wall thickness is 0.30 mm (± 0.05 mm).

Another factor that influences evaporation grades is the surface area to which the gas-phase is exposed. Although most thermal cyclers nowadays are equipped with heated lids, that prevent the main evaporation and condensation processes in the upper parts of a tube from happening, there is still a certain volume of the water in the gaseous phase. Low profile products exhibit a much better ratio between gaseous and liquid phase (less dead space), thus bringing the chances of wall-leakage through the gaseous phase down. Some thermal cyclers do not have height-adjustable heated lids, so an adaptor is needed in combination with low-profile products in these instruments (see tables on pages 5 & 15).

Clever design and sealing bands around the cap closure points provide a leak-free closure, especially in comparison with the closure of competitive tubes. In general, evaporation grades of EU products are below 4%, some even below 2%.



There are no competitor products that can match this level of low evaporation and some of them show evaporation grades of up to 20% of the original volume. With BIOplastics EU products you simply work with volumes as low as 5 μ l.



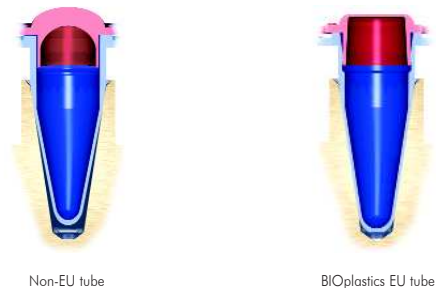
• Uniform wall

thickness and thin-wall caps

- Extremely low evaporation grades
- Low and high profile versions
- Sealing bands, clever design
- Work with 5 μ l volume (or less)

Tube-block contact angle & design issues

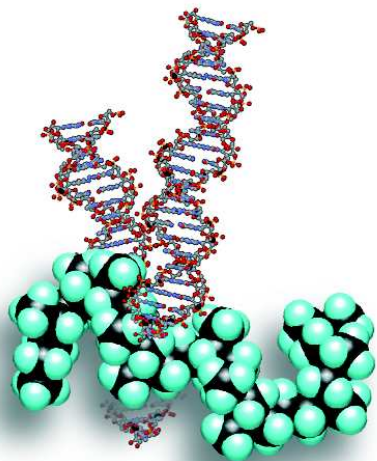
Measurements of the dimensions of different brands of cycler blocks show substantial differences in the internal contact angles of the wells. This means that every PCR tube, strip or plate, when placed in a block, will have a different fit. The development of PCR tubes during the last decade was no more than a miniaturisation of existing larger volume tubes (1,5 ml), and never took into account the internal shape of the thermal block holes. Furthermore, this internal shape is heavily influenced by differences in manufacturing techniques and the application of block coatings. BIOplastics has slightly modified the regular angle of PCR tubes to improve the surface contact in the blocks of all main brands of thermal cyclers. It goes without saying that a good block-tube contact is of vital importance for a good thermal cycling reaction.



While for the lower part of PCR tubes, strips and plates it is important to have a thin-wall (uniform) wall, this is not relevant for the upper part of the tube, where there is either no sample volume, or it extends above the cycler block and makes no thermal contact at all. That is why we have chosen to make this part of the tube, strips and plates thick-walled, to decrease the amount of evaporation substantially.

How the material composition of the disposable can influence your reaction

It is myth to think that the plastics of which PCR tubes, strips and plates are made, are inert. Inert in chemical way, yes. There are, off course, no covalent reactions taking place between the PCR components and the polypropylene, but the polypropylene may exhibit charged groups, anti-static properties, and hydrophobic areas. Different grades and mixes of polypropylene feature different "binding" of ions and other charged groups (like magnesium, proteins, DNA). Different brands and types of disposables can therefore show different PCR-reaction results.



BiOplastics offers its EU range of PCR disposables in two different plastic "grades": the normalised and optimised original EU material, and the so-called "A"-material. Design wise, these tubes are identical, with the same superior EU uniformity properties. Reaction wise, it's like changing your reaction setup. Depending on the robustness of your PCR protocol it can mean the difference between a good and a better result, between a bad and a good result, and between none and a positive result. On the other hand, if your PCR protocol is less sensitive to changes related to the interactions between PCR components and the disposable, you would not see a detectable difference at all.

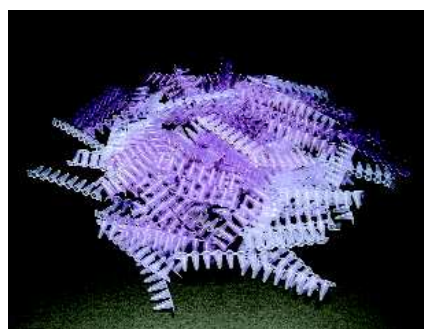
When you order a EU product, we standardly offer our optimised material type. In case you would like to compare your reaction with your existing tube, we advice you to also try our "A" quality, to see if it improves your results. Classic strips (C79601) are offered in both grades, for all other EU products the A-grade is available on request.

High Thermal Conductive Polypropylene

Different brands of PCR tubes, strips and plates are made of in wide variety of materials. Our special raw material blend composition selection is based on optical clarity, impact resistance, softness, gas-tightness, and Gamma irradiation withstanding as well as the new and optional selectable "binding", we have modified the basic mixture in a way that our products have a superior thermal conductivity over other standard materials. The choice of this new HCT (high thermal conductivity) results in faster thermal transfer from block to reaction mixture. The fact that our products are extreme uniform enables not only fast but also even better thermal transfer and by having these characteristics in place, Bioplastics PCR products can be used in any normal, fast and extreme fast PCR and Real Time PCR procedure. Generally the faster PCR protocol you run the higher demand you require to use our High Thermal Conductive material.

SW products: Undefined Swirling products

It looks like ART, it is never the same in colour composition, it is interesting to see and it brings life to your laboratory! So what are they? They are BiOplastics products which were collected, tested and packed during a change of colour of raw materials in our injection moulding machines. It results in the same product qualification but what is not defined is the colour it self. It may look like swirling from one colour to another, gradient coloured, fancy or just strange coloured. Different but with a character. The products can be recognized by SW in the order number.





Use of EU products in Real-Time PCR

Besides regular PCR, every EU product, from single tube to plate, is tested for use in Real-Time PCR applications. The caps of EU tubes and strips are designed to enable fluorescent signals to pass through to the optical detection unit of the thermal cycler.

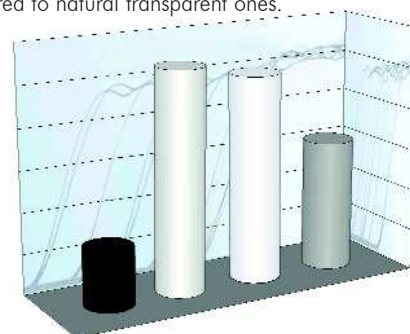
For the closure of EU strips and plates, three different versions of cap-strips can be applied. The semi-domed 8-cap strip (C79701) has a small, optically flat, parallel area. The best choice for Real-Time PCR however, is closure with the EU optical, flat 8-cap strip (B79701) or the more economically priced F79701. Its extremely clear glass-grade area equals the performance properties of optical seals. In contrast to seals, they do not have the disadvantage of adhesives that can interfere with the signals (higher signal/noise ratios), and exhibit better closure, thus less evaporation.



The 8-tube strips with single attached caps (B79201) have optical, glass grade areas of their own. Most EU products are available in white or black and some in "frosted" versions. Tests show significant increases in signal/ noise ratio when using the non-transparent white version and/or frosted versions, compared to natural transparent ones.



Comparison of Real-Time signals when using EU black, white, frosted or natural strips



EU Plastics Real-Time PCR Compatibility Chart

Manufacturer	Model	Wells	EU Singles			EU Eightm			EU Plates 96				EU Plates 384		
			B79401	B79001	C79401	B79601	B79901	C79601	B79201	B70651	B70501	AB17500	B70515	AB19800	AB70651
Biorad	iCycler iQ system	96	✗	✓	✓	☐	✓	✓	✓	✓	✓	✗	✗	✗	✗
	MylIQ system	96	✗	✓	✓	☐	✓	✓	✓	✓	✓	✗	✗	✗	✗
MJ Research	Opticon	96	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗
	Opticon 2	96	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗
	Chromo 4	96	✗	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✗
ABI	PE 5700	96	✗	✓	✓	☐	✓	✓	✓	✓	✓	✗	✗	✗	✗
	PE 7700	96	✗	✓	✓	☐	✓	✓	✓	✓	✓	✗	✗	✗	✗
	ABI 7000	96	✗	✓	✓	☐	✓	✓	✓	✓	✓	✗	✗	✗	✗
	ABI 7900	96/384	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓
	ABI 7300	96	✗	✓	✓	☐	✓	✓	✓	✓	✓	✗	✗	✗	✗
	ABI 7500	96	✗	✓	✓	☐	✓	✓	✓	✓	✓	✗	✗	✗	✗
Techne	Quantica	96	✗	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
		96	✗	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Stratagene	MX3000P	96	✗	✗	✓	☐	✗	✓	✗	✓	✓	✗	✗	✗	✗
	MX4000	96	✗	✗	✓	☐	✗	✓	✗	✓	✓	✗	✗	✗	✗
Corbett Research	Rotorgene	36	✗	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Bioer	Line-Gene FQD	33	✗	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗

✓ Fits the selected thermal cycler brand/type

✗ Does not fit the selected thermal cycler brand/type

☐ Requires EU adaptor to fit cycler (see page 19.)

EU Singles

EU Classic Single 0.2 ml Thin-wall Tube (High Profile) with Extra Strong Semi-domed Cap

This high profile EU tube combines all the EU advantages with a classical PCR tube shape. It features an extra strong, semi-domed cap of which the glass-grade, optical area is suited for Real-Time PCR. This EU tube is also suited for centrifugation purposes. Like all other high profile EU tubes and strips, it can be fixated in the EU Matrix (165051, see page 19), for simultaneous use in thermal cycling applications.

Can be used in many 0.2 ml block regular and Real-Time thermal cyclers (see tables on pages 6 & 16).

These extra strong semi-domed capped tubes are also available in a frosted version, to enhance signal yields in real-time PCR applications.

Orderno	Description	Package Size
C79401	EU Classic Single 0.2 ml Thin-wall tube, natural	.Bag, 1000
CF79401	EU Classic Single 0.2 ml Thin-wall tube, natural, frosted tube	.Bag, 1000

C79402	red	C79408	amber	CF79402	red	CF79408	amber
C79403	blue	C79409	white	CF79403	blue	CF79409	white
C79404	green	C79410	black	CF79404	green	CF79410	black
C79405	yellow	C79411	natural, sterile	CF79405	yellow	CF79411	natural, sterile
C79406	orange	C79412	SW colours	CF79406	orange	CF79412	SW colours
C79407	violet			CF79407	violet		



7.07 mm²

A-type material available on request*

EU Single 0.2 ml Thin-wall Tube (High Profile) with Optical, Flat Cap

This high profile EU tube features a thin-wall, flat, optical cap. The glass-grade, optical area is very well suited for Real-Time PCR, but it may also be used for writing identifications on. This EU tube is also suited for centrifugation purposes. Like all other high profile EU tubes and strips, this tube can be fixated in the EU Matrix (165051, see page 19), for simultaneous use in thermal cycling applications.

Can be used in many 0.2 ml block regular and Real-Time thermal cyclers (see tables on pages 6 & 16).

Orderno	Description	Package Size
B79001	EU Single 0.2 ml Thin-wall tube, natural	.Bag, 1000

B79002	red	B79007	violet	B79012	SW colours
B79003	blue	B79008	amber		
B79004	green	B79009	white		
B79005	yellow	B79010	black		
B79006	orange	B79011	natural, sterile		



12.57 mm²

A-type material available on request*

EU Single 0.2 ml Thin-wall Tube (High Profile) with Domed Cap

This high profile EU tube features a dome cap with a flat shaped optical area on top. It offers great flexibility in opening and closing repeatedly. The special anti-contamination tab prevents fingertips from touching the outskirts of the cap closing area, thus preventing DNA carry-over. The cap has a small, frosted writing area. Like all other high profile EU tubes and strips, this tube can be fixated in the EU Matrix (165051, see page 19), for simultaneous use in thermal cycling applications.

Can be used in many 0.2 ml block regular and Real-Time thermal cyclers (see tables on pages 6 & 16).

Orderno	Description	Package Size
B79401	EU Single 0.2 ml Thin-wall tube, natural	.Bag, 1000

B79402	red	B79407	violet	B79412	SW colours
B79403	blue	B79408	amber		
B79404	green	B79409	white		
B79405	yellow	B79410	black		
B79406	orange	B79411	natural, sterile		



6.82 mm²

A-type material available on request*



Trying to crack an EU tube...

Cracking of a PCR tube by applying too much pressure is often a major cause of volume loss. The small, microscopic hairline cracks are not visible for the bare eye. We ask you to take an EU tube of any kind between your fingers, squeeze it, and see what happens..... Right, nothing!! Because of the different material composition and the extreme uniform wall thickness EU products are strong and flexible at the same time. No cracking, but easy handling !



High vs. Low Profile

The difference between high and low profile products is illustrated in this photograph. More than half of high-profile strip remains above the thermal block level. Low profile products have a much better ratio between gaseous and liquid phase (less dead space), thus bringing the chances of wall-leakage through the gaseous phase down. However, some thermal cyclers do not have height-adjustable heated lids, so an adaptor is needed in combination with low-profile products in these instruments (see tables on pages 6 & 16). EU products are available in both high and low profile versions.



EU Colours

EU products are available in 8 different, dazzling colours, and in black and white versions.



EU Eighters

EU Classic 0.2 ml Thin-wall 8-tube Strip (High Profile)

This high profile 8-tube strip combines all the EU advantages with the classical 8-tube PCR strip shape. This strip can be used in virtually any 0.2 ml block regular and Real-Time thermal cycler (see table on page 16). Like all other high profile EU tubes and strips, this strip can be fixated in the EU Matrix (165051, see page 19), or in the PCR Click & Go System (165050 see page 19), for simultaneous use in thermal cycling applications.

Closure can be accomplished with EU optical, flat cap thin-wall 8-cap strips (B79701) or with the EU optical, semi-dome 8-cap strips (C79701).

Orderno	Description	Package Size
C79601	EU Classic 0.2 ml Thin-wall 8-tube strip, natural	.Bag, 120 strips
CA79601	EU Classic 0.2 ml Thin-wall 8-tube strip, natural, A-type material*	.Bag, 120 strips

C79602	red	C79608	amber	CA79602	red, A-type	CA79608	amber, A-type
C79603	blue	C79609	white RT	CA79603	blue, A-type	CA79609	white RT, A-type
C79604	green	C79610	black	CA79604	green, A-type	CA79610	black, A-type
C79605	yellow	C79611	natural, sterile	CA79605	yellow, A-type	CA79611	natural, sterile, A-type
C79606	orange	C79612	SW colours	CA79606	orange, A-type	CA79612	SW colours, A-type
C79607	violet			CA79607	violet, A-type		



EU 0.2 ml Thin-wall 8-tube Strip (High Profile)

This high profile EU 8-tube strip performs just slightly less than its low-profile counterpart with respect to evaporation. Can be used in almost every 0.2 ml block regular and Real-Time thermal cycler (see tables on pages 6 & 16). Like all other high profile EU tubes and strips, this strip can be fixated in the EU Matrix (165051, see page 19), for simultaneous use in thermal cycling applications.

Closure can be accomplished with EU optical, flat cap thin-wall 8-cap strips (B79701) or with the EU optical, semi-dome 8-cap strips (C79701).

Orderno	Description	Package Size
B79901	EU 0.2 ml Thin-wall 8-tube strip, natural	.Bag, 120 strips

B79902	red	B79907	violet	B79912	SW colours
B79903	blue	B79908	amber		
B79904	green	B79909	white RT		
B79905	yellow	B79910	black		
B79906	orange	B79911	natural, sterile		

A-type material available on request*



EU 0.2 ml Thin-wall 8-tube Strip (Low Profile)

This low profile 8-tube strip can be used in 0.2 ml block regular and Real-Time thermal cyclers with height-adjustable heated lids (see tables on pages 6 & 16), or otherwise in combination with the EU adaptor (B77777 or B77778 on page 19). Like all other low profile EU tubes and strips, this strip can be fixated in the EU Matrix (165052, see page 19), for simultaneous use in thermal cycling applications.

Closure can be accomplished with EU optical, flat cap thin-wall 8-cap strips (B79701) or with the EU optical, semi-dome 8-cap strips (C79701).

Orderno	Description	Package Size
B79601	EU 0.2 ml Thin-wall 8-tube strip, natural	.Bag, 120 strips

B79602	red	B79607	violet	B79612	SW colours
B79603	blue	B79608	amber		
B79604	green	B79609	white RT		
B79605	yellow	B79610	black		
B79606	orange	B79611	natural sterile		

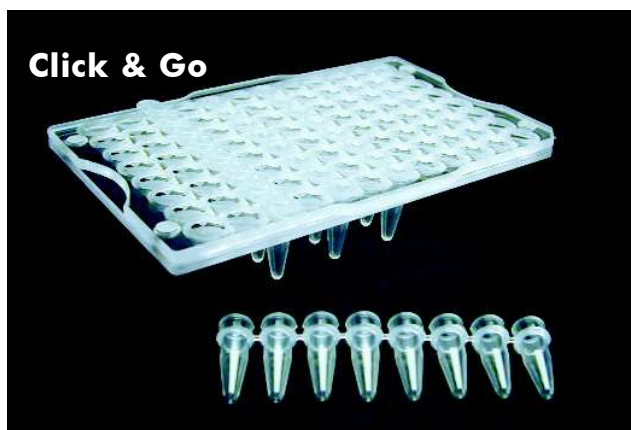
A-type material available on request*



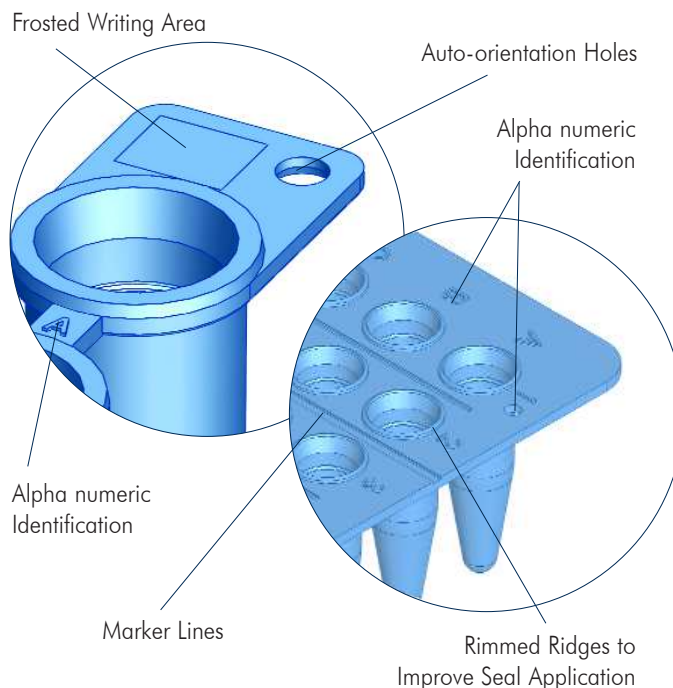


Don't get lost, don't mix up...

EU strips and plates have alpha-numeric markings (A ~H for strips, and 1 ~ 8, A ~H for plates) that assist in the location and identification of samples. EU strips are designed with so-called auto-orientation holes that help to position strips in a correct and reproducible way. EU plates have special marker lines to make it easier to keep track of pipetting positions. And although writing on a tube is not an easy task, all EU tubes, strips and plates have dedicated writing areas, some even frosted.



EU classic strips in a Click & Go system. The strips are positioned into the lower matrix of the system, and then secured with the upper matrix, by means of 4 small magnets. The system can then be used for PCR preparation, and put into the PCR thermal cycler as a whole. It is advised to use a small PCR work rack as a base when filling the PCR Click & Go system. The PCR Click & Go system can be cleaned, disinfected and even autoclaved (see page 19).



EU Eighters

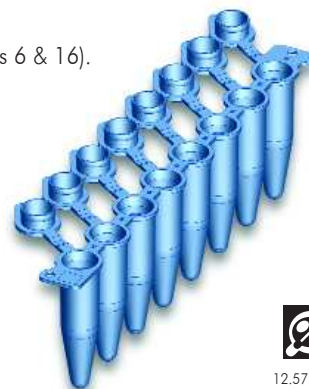
EU 0.2 ml Thin-wall 8-tube Strip with Single Attached Optical Caps (High Profile)

This EU 0.2 ml high-profile strip does not need a special means for closure. The optical clear caps are already attached to every single tube of this strip, and they can be opened and closed separately. Like all other high profile EU tubes and strips, this strip can be fixated in the EU Matrix (165051, see page 19), for simultaneous use in thermal cycling applications.

Can be used in almost every 0.2 ml block regular and Real-Time thermal cycler (see tables on pages 6 & 16).

Orderno	Description	Package Size
B79201	EU 0.2 ml Thin-wall 8-tube strip with attached caps, natural	.Bag, 120 strips
B79201B	EU 0.2 ml Thin-wall 8-tube strip with attached caps, natural	.Bag, 300 strips

B79202	red	B79208	amber	B79202B	red	BB79208B	amber
B79203	blue	B79209	white	B79203B	blue	B79209B	white
B79204	green	B79210	black	B79204B	green	B79210B	black
B79205	yellow	B79211	natural, sterile	B79205B	yellow	B79211B	natural, sterile
B79206	orange	B79212	SW colours	B79206B	orange	B79212B	SW colours
B79207	violet			B79207B	violet		



A-type material available on request*

EU Eighter Caps

EU Optical Semi-dome Cap Thin-wall 8-cap Strip

This semi-dome shaped cap still allows for Real-Time experiments because of its optical flat, parallel area on top. Strip has frosted writing areas at terminal sides.

For closure of 0.2 ml EU high-profile (C79601 and B79901 series) and low-profile (B79601 series) 8-tube strips and 96-wells EU plates.

Orderno	Description	Package Size
C79701	EU Semi-dome Thin-wall 8 cap-strip, natural	.Bag, 120 strips
C79701B	EU Semi-dome Thin-wall 8 cap-strip, natural	.Bag, 300 strips

C79702	red	C79708	amber	C79702B	red	C79708B	amber
C79703	blue	C79709	white	C79703B	blue	C79709B	white
C79704	green	C79710	black	C79704B	green	C79710B	black
C79705	yellow	C79711	natural, sterile	C79705B	yellow	C79711B	natural, sterile
C79706	orange	C79712	SW colours	C79706B	orange	C79712B	SW colours
C79707	violet			C79707B	violet		



7.07 mm²



EU Optical Flat Cap Thin-wall 8-cap Strip

The choice of closure for Real-Time PCR, but can also be used in regular cycling experiments. It features an extremely clear glass-grade area that equals the performance properties of optical seals. Strip has frosted writing areas at terminal side.

For closure of 0.2 ml EU high profile (C79601 and B79901 series) and low profile (B79601 series) 8-tube strips and 96-well EU plates.

Orderno	Description	Package Size
B79701	EU Optical Thin-wall 8 cap-strip, natural	.Bag, 120 strips
B79701B	EU Optical Thin-wall 8 cap-strip, natural	.Bag, 300 strips

B79702	red	B79708	amber	B79702B	red	B79708B	amber
B79703	blue	B79709	white	B79703B	blue	B79709B	white
B79704	green	B79710	black	B79704B	green	B79710B	black
B79705	yellow	B79711	natural, sterile	B79705B	yellow	B79711B	natural, sterile
B79706	orange	B79712	SW colours	B79706B	orange	B79712B	SW colours
B79707	violet			B79707B	violet		



12.57 mm²



EU Optical Full Flat Cap Thin-wall 8-cap Strip

The choice of closure for Real-Time PCR, but can also be used in regular cycling experiments. It features an extremely clear flat glass-grade area that equals the performance properties of optical seals. Strip has frosted writing areas at terminal sides.

For closure of 0.2 ml EU high profile (C79601 and B79901 series) and low profile (B79601 series) 8-tube strips and 96-well plates

Orderno	Description	Package Size
F79701	EU Semi-dome Thin-wall 8 cap-strip, natural	.Bag, 120 strips
F79701B	EU Semi-dome Thin-wall 8 cap-strip, natural	.Bag, 300 strips

F79702	red	F79708	amber	F79702B	red	F79708B	amber
F79703	blue	F79709	white	F79703B	blue	F79709B	white
F79704	green	F79710	black	F79704B	green	F79710B	black
F79705	yellow	F79711	natural, sterile	F79705B	yellow	C79711B	natural, sterile
F79706	orange	F79712	SW colours	F79706B	orange	C79712B	SW colours
F79707	violet			F79707B	violet	Available Q4, 2005	



12.57 mm²





EU Plates

EU One-piece, Non-skirted Thin-wall 96 x 0.2 ml Plate (High Profile)

These EU 96 well plates are non-skirted. They can be easily cut into 16, 24, 32 or 48-well pieces. Can be used in many 0.2 ml block regular and Real-Time thermal cycler (see tables on pages 6 & 16).

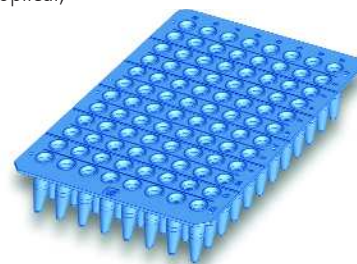


Closure can be accomplished with EU optical, flat cap thin-wall 8-cap strips (B79701), with the EU optical, semi-dome 8-cap strips (C79701), or with one of the EU BIO-Seals (EU Accessories, page 19)

Orderno	Description	Package Size
B70501	EU 96 x 0.2 ml Thin-wall plate, natural25 plates

B70502	red	B70507	violet	B70512	SW colours
B70503	blue	B70508	amber		
B70504	green	B70509	white		
B70505	yellow	B70510	black		
B70506	orange	B70511	natural, sterile		

A-type material available on request*



EU One-piece, Non-skirted Thin-wall 48 x 0.2 ml Plate (High Profile)

These EU 48 well plates are non-skirted. They can be easily cut into 16, or 24-well pieces. Can be used in 0.2 ml block regular and Real-Time thermal cycler (fits all 0.2 ml block thermal cyclers).

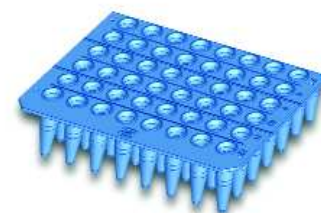


Closure can be accomplished with EU optical, flat cap thin-wall 8-cap strips (B79701), with the EU optical, semi-dome 8-cap strips (C79701), or with half of one of the EU BIO-Seals (EU Accessories, page 19).

Orderno	Description	Package Size
B71501	EU 48 x 0.2 ml Thin-wall plate, natural50 plates

B71502	red	B71507	violet	B71512	SW colours
B71503	blue	B71508	amber		
B71504	green	B71509	white RT		
B71505	yellow	B71510	black		
B71506	orange	B71511	natural, sterile		

A-type material available on request*



EU One-piece, Semi-skirted thin-wall 96 x 0.2 ml plate (High profile)

These EU 96 well plates have a very rigid, extra stabilised frame, and a semi skirt that makes them suited for robotic handling. They are very uniform in size and extremely flat. The evaporation grades are in between 3 and 4% depending on the means of closure. Can be used in many 0.2 ml block regular and Real-Time thermal cycler (see tables on pages 6 & 16).

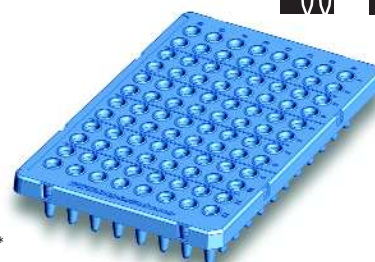
Closure can be accomplished with EU optical, flat cap thin-wall 8-cap strips (B79701), with the EU optical, semi-dome 8-cap strips (C79701), or with one of the EU BIO-Seals (EU Accessories, page 19).



Orderno	Description	Package Size
B70651	EU 96 x 0.2 ml Thin-wall plate, natural25 plates

B70652	red	B70657	violet	B70662	SW colour
B70653	blue	B70658	amber		
B70654	green	B70659	white RT		
B70655	yellow	B70660	black		
B70656	orange	B70661	natural, sterile		

A-type material available on request*



EU Plates

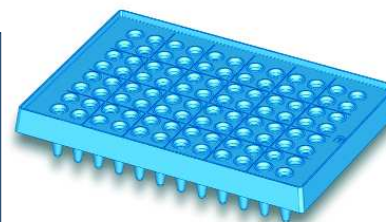
EU One-piece, Sub-skirted Thin-wall 96 x 0.2 ml Plate (High Profile) - ABI Compatible

These EU 96 well plates are the quality and price alternative, meant for use in any Applied Biosystems regular or Real-time PCR thermal cycler (see tables on pages 6 & 16). They have a very rigid, extra stabilised frame, and an elevated skirt. They are suited for both automatic loading as well as robotic handling. To improve real-time PCR signal yields, all tubes in this 96-well plate are designed frosted.

Closure can be accomplished with EU optical, fully flat cap thin-wall 8 cap strips (F79701), flat cap thin-wall 8-cap strips (B79701), with the EU optical, semi-dome 8-cap strips (C79701), or with one of the EU BIO-Seals (157300, 157200, EU Accessories, page 19) When closure is accomplished with fully flat cap thin-wall 8 cap strips (F79701), flat cap thin-wall 8-cap strips (B79701), or with one of the EU BIO-Seals the use of EU adaptor B77500 or an ABI expansion or compression mat is recommended. These ABI compatible plates are also available in barcode labeled versions, and in A-type material. A-type material is a different blend of PP, more resembling the classic PP-type. Read more about it on page 5. Order A-type material by adding an extra A behind the orderno. (e.g. AB17500A instead of AB17500).

Orderno	Description	Package Size
AB17500	ABI Compatible, EU 96 x 0.2 ml Thin-wall plate, natural	.25 plates
BB17500	ABI Compatible, EU 96 x 0.2 ml Thin-wall plate, natural, barcode labeled	.25 plates

AB17502	red	AB17508	amber	BB17502	red, barcoded	BB17508	amber, barcoded
AB17503	blue	AB17509	white RT	BB17503	blue, barcoded	BB17509	white RT, barcoded
AB17504	green	AB17510	black	BB17504	green, barcoded	BB17510	black, barcoded
AB17505	yellow	AB17511	natural, sterile	BB17505	yellow, barcoded	BB17511	natural, sterile, barcoded
AB17506	orange	AB17512	SW colours	BB17506	orange, barcoded	BB17512	SW colours, barcoded
AB17507	violet			BB17507	violet, barcoded		



A-type material available on request*

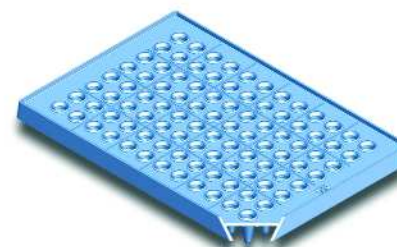
EU One-piece, Sub-skirted Thin-wall 96 x 0.2 ml Plate (Low Profile)

These EU 96 well low profile plates are sub-skirted. The plate has frosted tubes and can so be used in real time applications without using other coloured plates typically used for signal enhancement in Real Time PCR procedures. The plate is designed to fit 9800 system sample blocks and can also be used in many 0.2 ml block regular and Real-Time thermal cyclers (see tables on pages 6 & 16). The working volume for this plate is typically between 5 and 25 µl reaction mixtures. See (see tables on pages 6 & 16). Closure can be accomplished with EU optical, fully flat cap thin-wall 8 cap strips (F79701), flat cap thin-wall 8-cap strips (B79701), with the EU optical, semi-dome 8-cap strips (C79701), or with one of the EU BIO-Seals (157300, 157200, EU Accessories, page 19).

When closure is accomplished with fully flat cap thin-wall 8 cap strips (F79701), flat cap thin-wall 8-cap strips (B79701), or with one of the EU BIO-Seals the use of EU adaptor B79800 is recommended or the use of an ABI expansion or compression mat.

Orderno	Description	Package Size
AB19800	EU 96 x 0.2 ml Thin-wall plate, natural	.25 plates

AB19802	red	AB19807	violet	AB18012	SW colours
AB19803	blue	AB19808	amber		
AB19804	green	AB19809	white		
AB19805	yellow	AB19810	black		
AB19806	orange	AB18011	natural, sterile		
					Available Q3, 2005



A-type material available on request*



EU Plates

EU One-piece, Non-skirted Thin-wall 96 x 0.2 ml Plate (Low Profile)

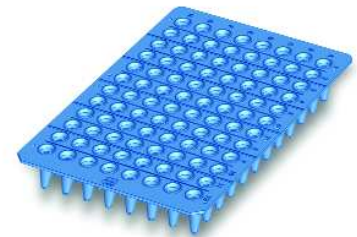
These EU 96 well low profile plates are non-skirted. The plate has frosted tubes and can so be used in real time applications without using other coloured plates typically used for signal enhancement in Real Time PCR procedures. Plates can be easily cut into 16, 24, 32 or 48-well pieces. Can be used in many 0.2 ml block regular and Real-Time thermal cyclers (see tables on pages 6 & 16). Closure can be accomplished with EU optical, fully flat cap thin-wall 8 cap strips (F79701), flat cap thin-wall 8-cap strips (B79701), with the EU optical, semi-dome 8-cap strips (C79701), or with one of the EU BIO-Seals (157300, 157200, EU Accessories, page 19).

Orderno	Description	Package Size
AB70651	EU 96 x 0.2 ml Thin-wall plate, natural25 plates



AB70652	red	AB70657	violet	AB70662 SW Colours
AB70653	blue	AB70658	amber	
AB70654	green	AB70659	white	
AB70655	yellow	AB70660	black	
AB70656	orange	AB70661	natural, sterile	
Available Q3, 2005				

A-type material available on request*



EU One-piece, Skirted Thin-wall 384 Wells Plate

This full-skirted 384-wells EU plate is fully optimised for robotic applications, and allows for high-throughput, low-volume processing. Can be used in many 384-wells block regular and Real-Time thermal cycler (see tables on pages 6 & 16). Closure can be accomplished with one of the EU BIO-Seals (157300, 157200, EU Accessories, page 19).

Orderno	Description	Package Size
B70515	EU 384 Wells Thin-wall plate, natural50 plates

B70519	white RT	B70521	natural, sterile
B70520	black RT		



How clean do you want your EU product to be?

As they are produced under no hands-on conditions, and with virgin polypropylenes, EU products are guarantee to be DNA, RNA, DNase, RNase and pyrogen free. For PCR this is sufficient to avoid any contamination issues. Sterility is not anecessity, and is anyway not a means to get rid of nucleic acid breakdown enzymes. It is only needed when absence of microorganisms is a must. In that case, we advice you to purchase the sterile EU version, instead of autoclaving yourself.

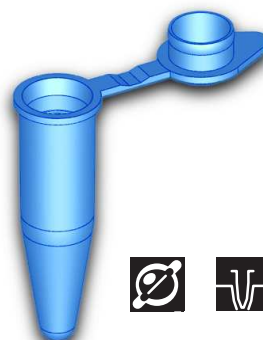
EU Single 0.5 ml Tubes

EU Single 0.5 ml Plain Thin Wall Tube with optical flat cap

Single 0.5 ml thin wall plain tube with attached optical flat top cap, plain with frosted writing area at the side. Designed for Real Time PCR procedures ,can also be used of regular laboratory procedures where high performance, reproducibility and superior quality is required. Free of any detectable Dnase, Rnase, proteins, DNA, pyrogens and metals. Non Sticky, low adhesion.

Orderno Description Package Size
 B79801 EU 0.5 ml Thin-wall Plain tubes with attached cap,natural bag of 1000

B79802	red	B79807	violet	B79812 SW colours Available Q4, 2005
B79803	blue	B79808	amber	
B79804	green	B79809	white	
B79805	yellow	B79810	black	
B79806	orange	B79811	natural, sterile	

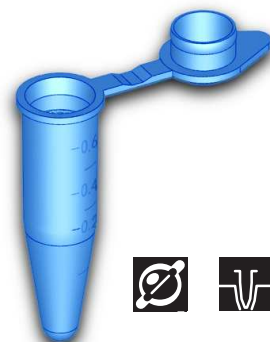


EU Single 0.5 ml Graduated Thin Wall Tube with optical flat cap

Single 0.5 ml thin wall tube with attached optical flat top cap, with frosted writing area at the side. Graduated at each 0.1 ml section. Designed for Real Time PCR procedures, can also be used of regular laboratory procedures where high performance, reproducibility and superior quality is required.

Orderno Description Package Size
 C79801 EU 0.5 ml Thin-wall Plain tubes with attached capnatural bag of 1000

C79802	red	C79807	violet	C79812 SW colours Available Q4, 2005
C79803	blue	C79808	amber	
C79804	green	C79809	white	
C79805	yellow	C79810	black	
C79806	orange	C79811	natural, sterile	





EU Plastics Regular PCR Compatibility Chart

Manufacturer	Model	Wells	EU Singles			EU Eighters				EU Plates 96				EU Plates 384	
			B79401	B79001	C79401	B79601	B79901	C79601	B79201	B70651	B70501	AB17500	AB70651	AB19800	B70515
Biometra	Uno	24/48/96	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	Uno II	24/48/96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	TPersonal	48	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗
	T1 (plus)	96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	T Gradient	96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	T3	48	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗
Biorad	Gene Cyclor	24	✓	✓	✓	□	✓	✓	✓	✗	✗	✗	✗	✗	✗
	iCycler	48/96/384	✓	✓	✓	□	✓	✓	✓	✓	✓	✓	✓	□	✗
	MyCycler	96	✓	✓	✓	□	✓	✓	✓	✓	✓	✓	✓	□	✗
Eppendorf	Mastercycler	96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	Mastercycler personal	25	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
MJ Research	PTC-150	25	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
	PTC-100	96	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	PTC-200	48/96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	PTC-221	48/96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	PTC-220	48/96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	PTC-225	48/96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
MWG	Primus 25	25	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
	Primus 96	96	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	Primus 384	384	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
	Primus HT Dualblock	96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	Primus Multiblock	96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
ABI	PE 2400	24	✓	✓	✓	□	✓	✓	✓	✗	✗	✗	✗	✗	✗
	PE 9600	96	✓	✓	✓	□	✓	✓	✓	✓	✓	✓	✓	□	✗
	PE 2700/ 2720	96	✗	✓	✓	□	✓	✓	✓	✓	✓	✓	✓	□	✗
	PE 9700	96/384	✗	✓	✓	□	✓	✓	✓	✓	✓	✓	✓	□	✗
	PE 9800	96	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✗
Techne	Genius	96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	TouchGene	96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	FlexiGene/FlexiQuad	96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	ProGene	25	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
	TechGene	25/96	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	Gene-E	96	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	TC-312	25	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
	TC-412	96	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	TC-512	96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
Thermo	PxE	96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	OmniGene	96	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	PCR Express	48/96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	OMN-E	96	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	TouchDown	48/96	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	Px2	96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
	PCR sprint	24	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗
	MBS	96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓
MBSR	96/384	✗	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	□	✓	
Stratagene	Robo-Cycler	96	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	□	✗
Corbett Research	PalmCycler	96/384	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	□	✓

✓ Fits the selected thermal cycler brand/type ✗ Does not fit the selected thermal cycler brand/type □ Requires EU adaptor to fit cycler (see page 19)

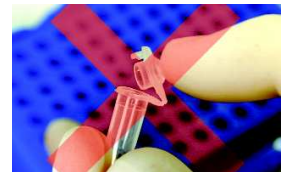
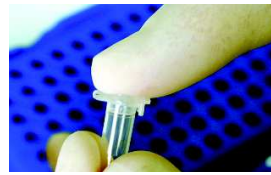
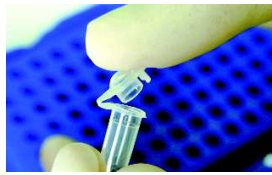
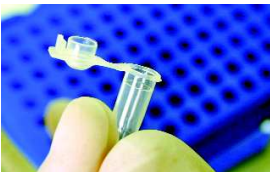
Trademarks

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How to open and close EU PCR products....

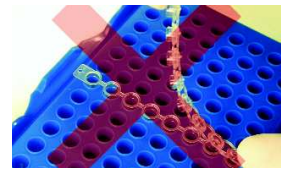
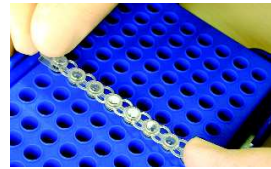
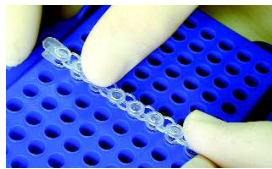
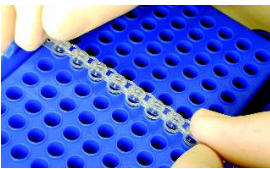
EU products can be opened and closed many times without breaking, or losing their shape and sealing properties. When using single EU tubes, or strips with single attached caps, closure of the caps should be accomplished by pressing the front face end of the cap slightly backwards towards the hinge, and not by pushing it from the backside. Cap-strips should be applied in a parallel manner, and in an angle onto the strips and plates, preferably closing all 8 wells simultaneously. No special closing tools are required.

Closing Single Tubes



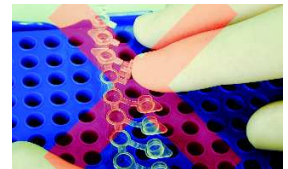
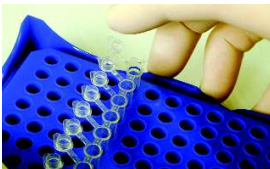
Press the front face end of the cap towards the hinge.

Closing Strips with Strip-Caps



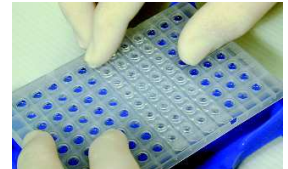
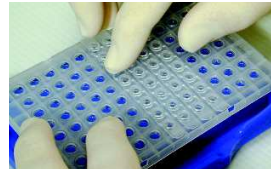
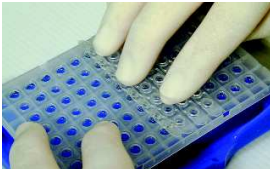
Apply cap-strips parallel and in a slight angle, before closing.

Closing Strips with Single Attached Caps



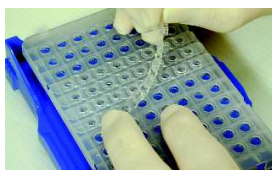
Press the front face end of the cap towards the hinge.

Closing Plates with Strip-Caps



Apply cap-strips parallel and in a slight angle, before closing.

Opening and Reclosing Plates with Strip-Caps



Open the cap-strip starting from one side. When closing apply pressure per cap in the opposite direction.



EU Accessories

EU Opti-seal (Optical, Disposable, Adhesive)

This disposable, adhesive seal provides the best sealing option for EU plates. The EU Opti-seal is non-pierceable, but can be easily removed after the PCR reaction is performed. A pressure, applied by the heated lid of a thermal cycler, is needed to keep the seal well closed during thermal cycling. EU Opti-seal has excellent optical properties, and is therefore a good choice for Real-Time PCR applications.

EU Alu-seal (Disposable, Adhesive)

This disposable, adhesive aluminised seal provides a good sealing option for EU plates. EU Alu-seal is pierceable, and suited for cold storage after the PCR reaction. A pressure, applied by the heated lid of a thermal cycler, is needed to keep the seal well closed during thermal cycling.

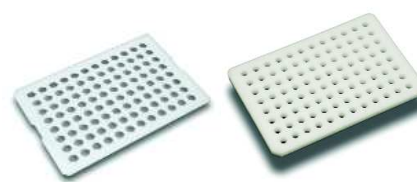
Orderno	Description	Package Size
157300	EU Opti-seal (optical, disposable, adhesive)	100 sheets
157200	EU Alu-seal (disposable, adhesive)	100 sheets



EU Adaptors

This EU adaptor is available in two configurations (96 and 24), and should be used whenever low profile versions of EU 0.2 ml thin-wall 8-tube strips or 0.2 ml single tubes are used in ABI/PE or Biorad PCR and Real-Time PCR thermal cyclers (see table, page 5 & 15). Because these cyclers do not have a height-adjustable heated lid, there is a space between the caps and the lid, causing the tube-(strips) to open and the reaction liquid to evaporate. For these thermal cyclers the EU high-profile products are the best solution.

Orderno	Description	Package Size
B77500	EU adaptor B79800 for use in AB17500 plates & any ABI systems	1 adaptor
B79800	EU adaptor B79800 for use in AB19800 plates & systems	1 adaptor
B77777	EU Low Profile Strip Adaptor for 96 wells cyclers	1 adaptor
B77500	EU adaptor for use in AB17500 plates & any ABI systems	1 adaptor



EU Plate Pipet Aid

The EU Plate Pipet Aid is a clever designed work stand, to assist and improve the pipetting procedure for non-skirted EU plates (B70501). Because of the 30° angle in which the 96-well EU plate is positioned, pipetting is way more convenient. The mirror at the base of the rack aids in the visualization of the wells, while the top fixation plate has clear alpha-numeric markings to keep track of the samples.

Orderno	Description	Package Size
B33333	EU Plate Pipet Aid	1 system



PCR Click & Go System

Durable polycarbonate 96 well clamp system for the fixation of EU Classic 0.2 ml thin-wall 8-tube strips (C79601 series). The strips are positioned into the lower matrix of the system, and then secured with the upper matrix, by means of 4 small magnets. The system can then be used for PCR preparation, and put into the PCR thermal cycler as a whole. It is advised to use a small PCR work rack as a base when filling the PCR Click & Go System. The PCR Click & Go System can be cleaned, disinfected and even autoclaved.

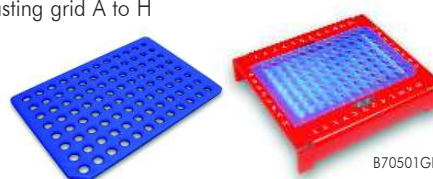
Orderno	Description	Package Size
165050	PCR Click & Go System	1 system



EU Matrix, EU Orientation Help Grid Rack

EU matrix is a flat and rigid (96 hole) insert grid for the fixation of high profile tubes and strips. The matrix is heat resistant and can be used directly in a thermal cycler. The Matrix is available in a version for low and high-profile tubes/strips. EU Orientation Help Grid Rack is a one piece stackable rack with a large and clear, colour contrasting grid A to H and 1 to 12 rack. For use with B70501 or any other 96 well format PCR plate

Orderno	Description	Package Size
B70501GR	EU Orientation Help Grid Rack	1 rack
165051	EU Matrix for high-profile tubes/strips	5 grids
165052	EU Matrix for low-profile tubes/strips	5 grids



B70501GR

EU Pipet Tips

Pipet tips for PCR, Low Adhesion, Non-binding, High retention

The accuracy of pipetting tips particularly depends on the quality of the tips used. Due to the fact that PCR methods are more and more being used in diagnostic applications, Bioplastics has developed a superior pipet tip for use in any PCR or related high performance technique. Bioplastics has used the existing knowledge of superior design and manufacturing capabilities to generate this new highly accurate pipet tips.

Low adhesion and non-binding

Bioplastics is using the same high performance blend of polypropylene as used in EU PCR tubes and plates. By using this material a perfect seal to the pipet is guaranteed and the inert and no surface charged PP assures non binding of any charged molecules as DNA, proteins etc.. Furthermore, high retention is achieved due to polish and material characteristics. It means that "all" liquid is pipetted and no or very low limited liquid films will remain in the tip enabling the highest possible sample recovery.

Different colours and coding procedures

So far coloured pipettips were available in 2 colours. Typically yellow for 200 µl and blue for 1ml volumes.

Select by colour based on application

Bioplastics is introducing 9 different colours for pipet tips. It enables laboratories to separate tips by application, enzyme or template pipetting, infectious and non infectious materials, or other possible relevant parameters. All tips are free of any detectable Dnase, Rnase, proteins, DNA, pyrogens and metals.

10 µl

Fits Gilson, Rainin, Eppendorf, Biohit, Nichiryo, Oxford and others.
Free of any detectable Dnase, Rnase, proteins, DNA, pyrogens and metals

Orderno	Description	Package Size
B70558	natural	.bag of 1000 tips

B70602	red	B70605	yellow	B70608	amber	B70611	natural, sterile
B70603	blue	B70606	orange	B70609	white	B70612	SW colours
B70604	green	B70607	violet	B70610	black		



10 µl

Fits Eppendorf, Biohit, Nichiryo, Oxford, Socorex and others
Free of any detectable Dnase, Rnase, proteins, DNA, pyrogens and metals

Orderno	Description	Package Size
B71029	natural	.bag of 1000 tips

B71032	red	B71035	yellow	B71038	amber	B71041	natural, sterile
B71033	blue	B71036	orange	B71039	white	B71042	SW colours
B71034	green	B71037	violet	B71040	black		



200 µl

Fits Gilson, Rainin, Eppendorf, Biohit, Finnpiquette Socorex Excaliber and others
free of any detectable Dnase, Rnase, proteins, DNA, pyrogens and metals

Orderno	Description	Package Size
B71931	natural	.bag of 1000 tips

B71932	red	B71935	yellow	B71938	amber	B71941	natural, sterile
B71933	blue	B71936	orange	B71939	white	B71942	SW colours
B71934	green	B71937	violet	B71940	black		

