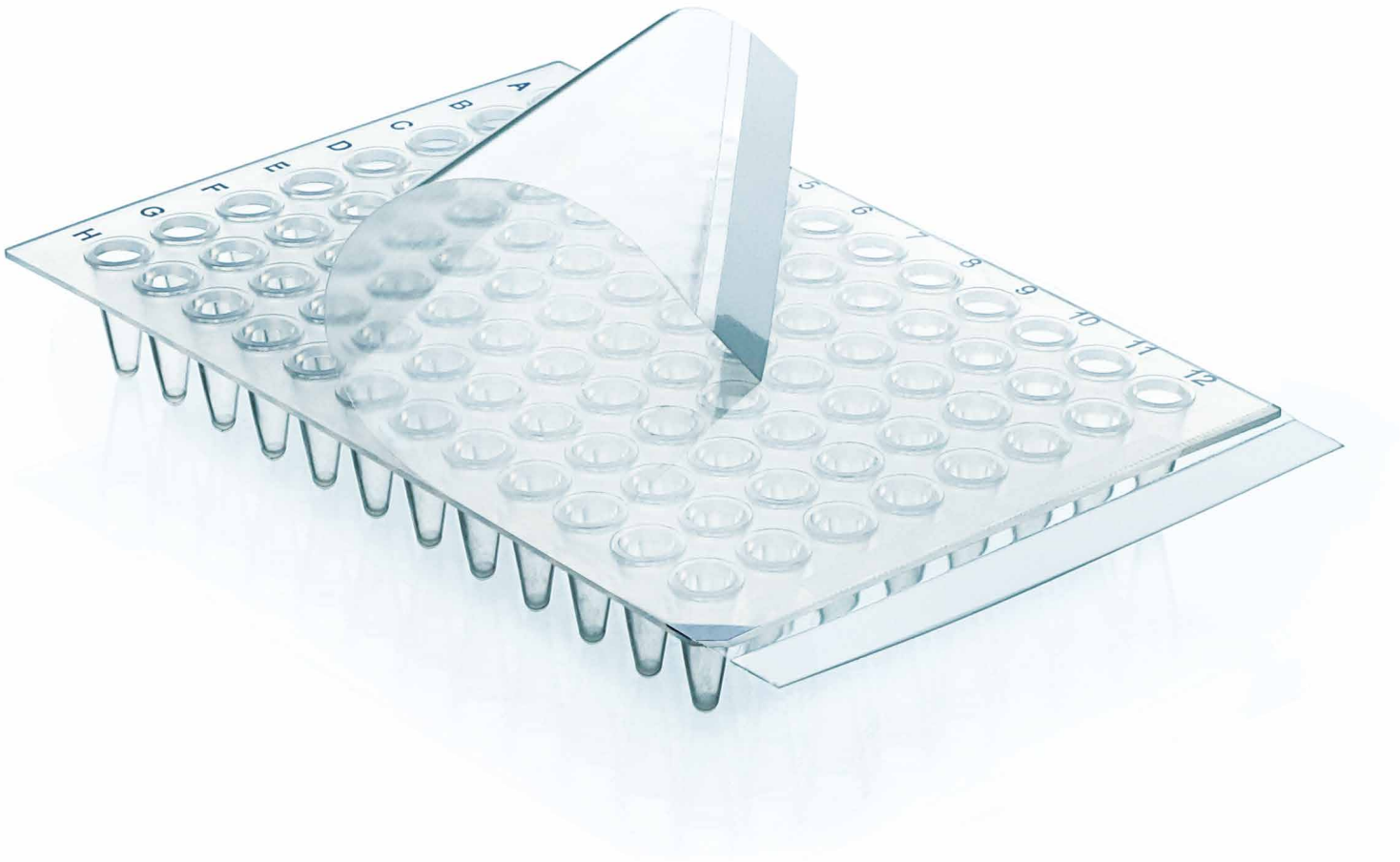
BRAND®

Sealing Films

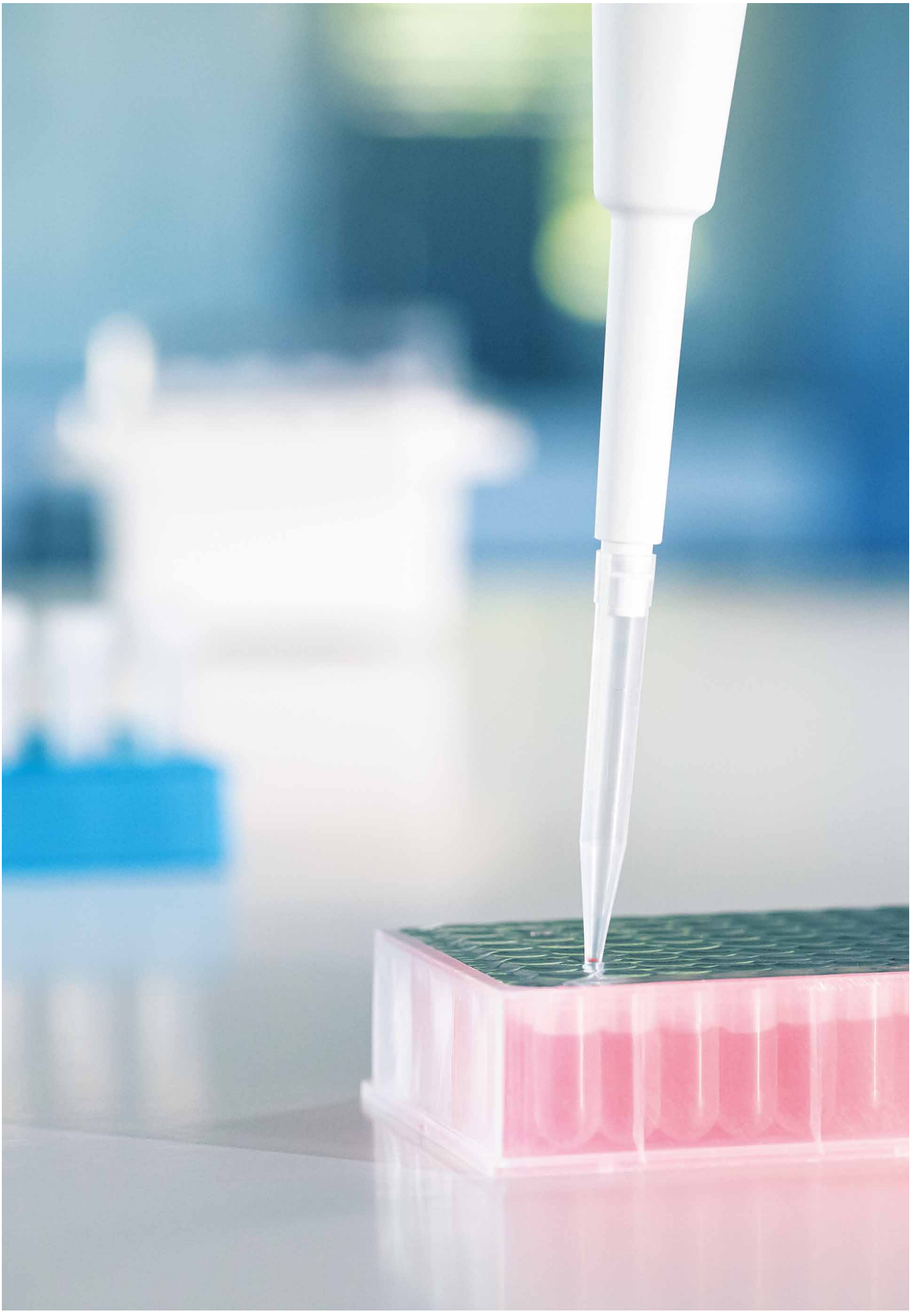
Efficient protection against evaporation and contamination

BRAND. For lab. For life.®

+ Protect your samples against evaporation and contamination
+ For PCR, cell culture, automation and many other applications
+ For all plates in ANSI/SLAS format



LIFE SCIENCE SEALING FILMS



Overview: advantages

With self-adhesive sealing films from BRAND, you can cover your samples and securely seal them. BRAND offers a wide range of easy-to-handle sealing films with application-specific features, so you can rely on your samples being protected in any application.

Selecting the right sealing film for your application improves your workflow efficiency and the quality of the results. Film properties such as transparency or pierceability provide optimal support for your specific application. The secure seal prevents contamination to ensure reliable results, while also reducing costs due to minimized evaporation.

- + Easy to apply and remove without expensive equipment
- + Reliable adhesion for optimum protection and minimized evaporation loss
- + Light-blocking films for protection of light-sensitive samples

- + Highly-transparent films for optimal measurement results
- + Gas-permeable films for cell and tissue cultures
- + Black and white films for sensitive fluorescence and luminescence measurements

The right film for your application

Application

PCR/qPCR

Automation

Storage and transport

Cell culture

Fluorescence and luminescence measurement

Protecting your samples is a high priority. In addition to preventing contamination and evaporation loss, sealing films provide optimal support for your application and enable you to achieve excellent results. The more clearly you define your application, the easier it is to select the right sealing film.

Sealing films for PCR and qPCR

Whether standard PCR, qPCR or digital droplet PCR, the source material is always valuable and the volume always low. To protect samples and maintain their sensitivity at the same time, PCR samples must be perfectly sealed.

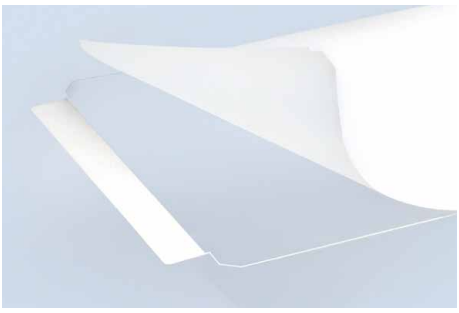
Requirements for PCR/qPCR sealing films:

+ Temperature stability up to 110 °C resp. 120 °C
+ Tight seal for minimizing evaporation
+ Highly transparent for use in qPCR methods

qPCR film

This film is suitable for real-time PCR, ELISA and other colorimetric applications. The film is highly transparent and has minimal autofluorescence. In addition, film 781391 can be easily repositioned for a perfect seal thanks to pressure-sensitive adhesive beads which are only activated when pressure is applied.

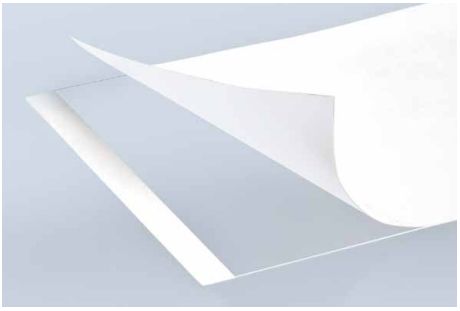
Description	Material	Pack of	Cat. No.
Film	Polyester	100 pcs	781391
Film strips	Polyester	400 pcs (50 sheets of 8 strips)	781383



PCR film

This film is suitable for PCR, ELISA, EIA and other optical applications. It is transparent, enabling visual inspection of samples. Two tabs make it easy to handle, and the strong adhesive minimizes evaporation, while ensuring that the film remains securely in place on all plate types – whether polystyrene or polypropylene.

Description	Material	Pack of	Cat. No.
Film	Polyester	100 pcs	781390



Film for PCR and storage

This film is ideal for PCR, ELISA and sample storage. Due to its special adhesive, it is usable in temperatures down to -80° C and is DMSO and solvent resistant. Transparency ensures optimal conditions for visual inspection.

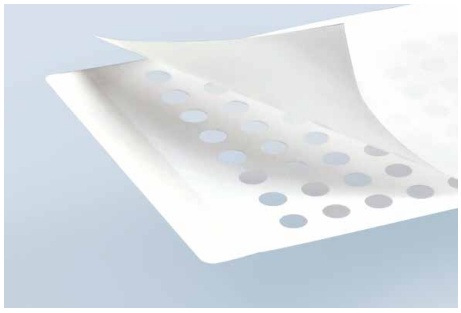
Description	Material	Pack of	Cat. No.
Film	Polypropylene	100 pcs	701367

Sealing films for automation processes

Due to the increasing number of diagnostic methods, the number of samples processed is growing steadily. This means that high-throughput analyses are gaining significance. In these automated processes, the films must not only protect the samples, but also comply with the mechanical requirements of automation.

Sealing film requirements for automation:

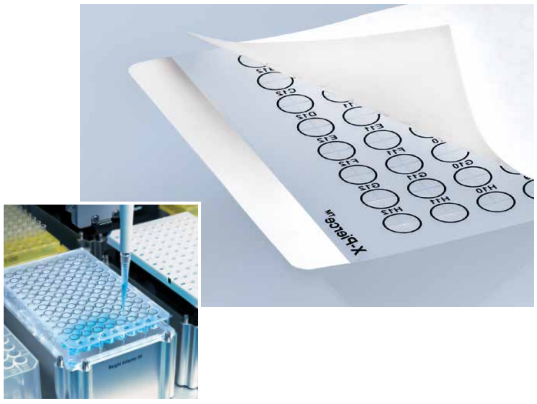
+ Pierceability
+ Adhesive-free zones for contamination-free tasks
+ Tight seal for minimizing evaporation



Film with adhesive-free zones

In high-throughput and automation applications, this film protects your samples against impurities, while the adhesive-free zones protect against contamination with adhesive. Pipettes and automation systems are able to pierce through it easily, and it is highly resistant against chemicals.

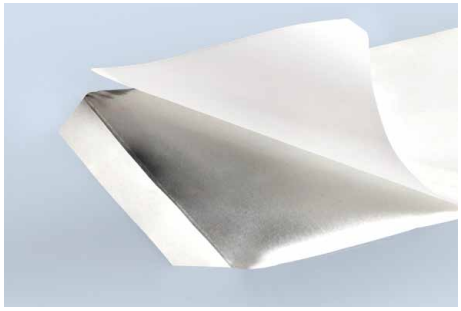
Description	Material	Pack of	Cat. No.
Film	Polyethylene/ Polypropylene	50 pcs	701370



Pre-punched film

The well openings on this film are pre-punched for repeated sampling in automation processes. The four flaps can easily be pressed open by an automation probe or pipette tip and returned to their original closed position after sampling. This protects the samples against evaporation and contamination. Samples can be safely identified thanks to the alphanumeric coding.

Description	Material	Pack of	Cat. No.
Film	Vinyl	100 pcs	701374



Aluminum film

This film can be easily pierced by single- and multi-channel pipettes and in automation systems. Thanks to a special adhesive, it is DMSO-resistant and extremely resistant to solvents. The film is impervious to light, making it ideal for protecting light-sensitive samples.

Description	Material	Pack of	Cat. No.
Film	Aluminum	100 pcs	781381

Sealing films for long-term storage

Evaporation and contamination can make samples unusable, especially when stored for long periods. In order to protect the samples and store them so that they are easily accessible, the right sealing film must be used.

Requirements for films used for storage:

+ Temperature stability down to -80 °C
+ Tight seal for minimizing evaporation
+ Pierceability or residue-free removal for easier sample accessibility

Laboratory storage

Short-term storage	Medium-term storage	Long-term storage
+ While working + For incubation	+ Overnight or for several days + From 4 °C to room temperature	+ Several weeks or months + At -80 °C

Film for cold storage

Aluminum film is suitable for storing samples at temperatures down to - 80 °C. Thanks to its strong adhesive, it is DMSO-resistant and extremely resistant to solvents. The film protects your samples from light and can be easily pierced by pipettes and automation systems.

Description	Material	Pack of	Cat. No.
Film	Aluminum	100 pcs	781381
Foil strips	Aluminum	300 pcs (50 sheets of 6 strips)	781382

Removable film for PCR and cold storage

Two films ideal for storing samples temporarily for several weeks. These films reliably protect the samples, are stable in temperatures down to -80°C and can be easily removed after storage, for normal processing. The films are free of DNA, DNase and RNase and can thus also be used for PCR applications.

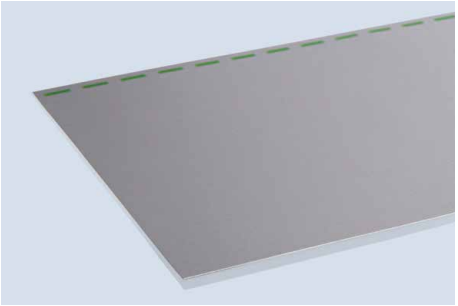
Description	Material	Pack of	Cat. No.
Film	PET	100 pcs	701376
Film	Aluminum	100 pcs	701377

Heat Sealing foil for storage and transport

If the samples are not only to be stored for a short time, but also transported safely and stored over a longer period of time, heat sealing foils are best suited.
The high temperature causes the foil and the edge of the well to fuse together, reliably protecting each individual sample from evaporation and contamination.

Requirements for Heat Sealing foil:

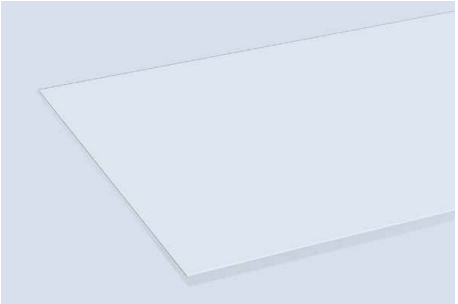
+ Heat sealing technology for effective and durable plate sealing
+ Aluminum foils for low temperatures and applications with solvents incl. DMSO
+ Transparent foil for qPCR and colorimetric assays



Heat Sealing foil for PCR

An aluminum film used for plates made of PP or PS. It is resistant to solvents and is used both at low temperatures as well as for storage at ambient temperature (temperature resistant from −20°C to +120°C). It can be pierced as required.

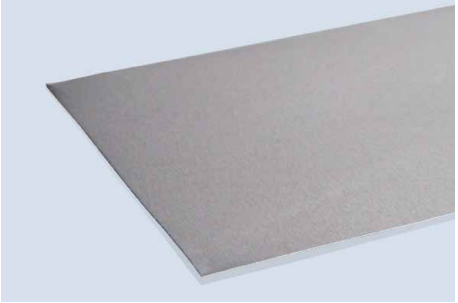
Description	Material	Pack of	Cat. No.
Film	Aluminum	100 pcs	701430



Heat Sealing foil for qPCR

A transparent film made of PE and used for PP plates. Good optical properties make it suitable for qPCR and colorimetric investigations (temperature resistant from −80°C to 110°C).

Description	Material	Pack of	Cat. No.
Film	Polyeth-ylene	100 pcs	701431



Heat Sealing foil for Sample Storage

An aluminum film used for plates made of PP or PS. Ideal for storage of solvents (including alkaline solvents) and organic acids. Enables long-term storage and transport at low temperatures. Application range between −200°C and +110°C. Depending on the requirements, it can be either peeled off.

Description	Material	Pack of	Cat. No.
Film	Aluminum	100 pcs	701432

Sealing films for fluorescence/ luminescence measurement

White and black films provide support for fluorescence and luminescence measurements and for microscopy. Weak signals are amplified and interference of light from outside is minimized.

Requirements of films for fluorescence/luminescence measurement:

+ Black, light-absorbing film for optimal fluorescence measurement
+ White, light-reflecting film for amplified luminescent signal
+ Temperature stable down to - 40 °C

Film for fluorescence measurement

The black, light-absorbing film improves fluorescence measurement results. It can be attached to the top or bottom of the plate and minimizes the interference of light from outside. Sectioned backing paper assists with application.

Description	Material	Pack of	Cat. No.
Film	Vinyl, black	50 pcs	701371

Film for luminescence measurement

This white film can be attached to the top or bottom of the plate for optimized light absorption during luminescence measurements. It significantly increases the sensitivity of the measurement. Thanks to the sectioned backing paper, it is easy to apply.

Description	Material	Pack of	Cat. No.
Film	Vinyl, white	50 pcs	701372

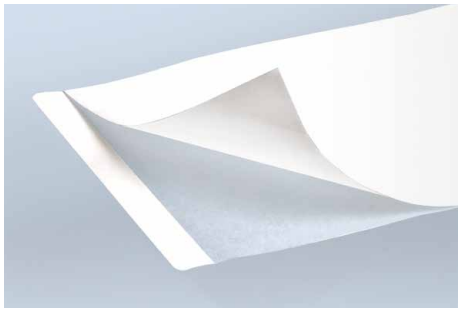
Further information about all compatible PCR plates as well as other PCR products are available on our website **www.brand.de/pcr**.

Sealing films for cell and tissue cultures

When handling cell and tissue cultures, a secure seal alone is not enough to protect against contamination and transporting. Even gas exchange is just as important. A lack of oxygen or too much carbon dioxide can lead to inaccurate results or even cause the cells to die. Therefore, films for cell and tissue cultures are subject to special requirements.

Requirements of films for cell and tissue cultures:

+ Air permeable for optimum oxygen supply
+ Secure seal against contamination
+ Pierceability for easy sample extraction



Air-permeable film

This film supports cell and tissue culture applications due to its non-cytotoxic adhesive. It is available in sterile and non-sterile versions and provides optimal contamination protection with high breathability. Uniform porosity ensures even evaporation.

Description	Material	Pack of	Cat. No.
Film	Rayon, non-sterile	100 pcs	701364
Film	Rayon, sterile	50 pcs	701365

Accessories

Sealing paddle

The sealing paddle helps to apply self-adhesive films. Thanks to its streamlined sides and rounded shape, it rests comfortably in your hand and ensures optimal force transfer.

Description	Pack of	Cat. No.
Sealing paddle	1 pc	701381

Overview

Applications	Material	Min. temp. in °C	Max. temp. in °C	Heat sealing	Removable	Pierce-able	DNA-, DNase-, RNase-free	Sterile	Pack of	Cat. No.
qPCR, ELISA, colorimetric applications	Polyester	-40	110		✔		✔		100 pcs	781391
qPCR, PCR and storage (film strips)	Polyester	-40	120				✔		400 pcs (50 sheets of 8 strips)	781383
PCR, ELISA, EIA and other optical applications	Polyester	-40	120				✔		100 pcs	781390
PCR, ELISA, other optical applications and storage	Polypropylene	-80	120						100 pcs	701367
PCR and cold storage	PET	-80	120		✔		✔		100 pcs	701376
PCR and cold storage	Aluminum	-80	120		✔		✔		100 pcs	701377
PCR and storage (film strips)	Aluminum	-80	120			✔	✔		300 pcs (50 sheets of 6 strips)	781382
qPCR, PCR, storage and disposal	Polyethylene	-80	110	✔			✔		100 pcs	701431
PCR, storage and transportation	Aluminium	-20	120	✔	✔	✔	✔		100 pcs	701430
Cold storage, light protection and automation	Aluminum	-80	120			✔	✔		100 pcs	781381
Storage and transportation	Aluminium	-200	120	✔	✔		✔		100 pcs	701432
Automation	Polyethylene/ Polypropylene	-40	90			✔			50 pcs	701370
Automation	Vinyl	-40	90			✔	✔		100 pcs	701374
Cell/Tissue culture	Rayon	-20	80						100 pcs	701364
Cell/Tissue culture	Rayon	-20	80					✔	50 pcs	701365
Fluorescence measurement, storage	Vinyl, black	-40	80						50 pcs	701371
Luminescence measurement, microscopy	Vinyl, white	-40	80						50 pcs	701372

PCR/qPCR · Automation · Storage and transport · Cell culture · Fluorescence and luminescence measurement

USER TIP

BRAND PCR plates and PCR sealing films – a perfectly adjusted system

Introduction

The PCR plates from BRAND are designed to support polymerase chain reactions in several ways. The source materials selected are free of PCR inhibitors and the smooth vessel interior minimizes the binding of enzymes and nucleic acid to the walls. In addition, the ultra thin-walled PCR plate design facilitates constant, rapid and precise heat transfer leading to convincing yields and short PCR cycle times.
Generating the desired PCR product and shielding it from evaporation are decisive elements of a successful PCR. The innovative self-adhesive press-to-seal sealing film wins over with easy handling; it is not tacky to the touch and provides superior evaporation protection. The film is highly transparent and can be used for measuring the smallest signals during optical measurements like Real-Time PCR.
The BRAND PCR plates and the BRAND PCR sealing films form a masterfully tuned system. The surfaces of the PCR plates and the adhesive side of the sealing films are tailored to each other and reach striking results.

Material & Methods

Devices:

Thermal cycler Biometra T1
Precision scale Sartorius CP 225 D
Transferpette® *S* (#704778)
Pipette tips 200 µl (#732008)
TipBox (#732208)
Reagent reservoir (#703459)

PCR systems:

BRAND PCR system:
PCR plate (#781368)
with sealing film (#781391)

Competitor 1 PCR system:
PCR plate with matching sealing film

Competitor 2 PCR system:
PCR plate with matching sealing film

Chemicals reagents:

Water (10 ml [50 µl each well])
Cationic dye methylene blue

Measurement of evaporation losses of different PCR systems

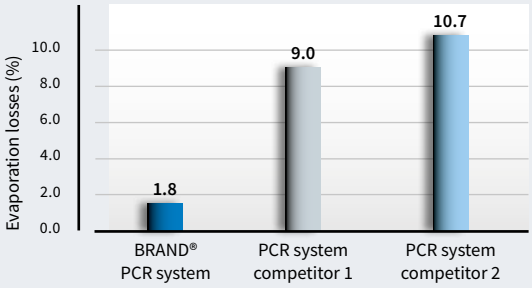
A mixture of water with the cationic dye methylene blue was prepared. In each PCR plate every well was filled with 50 µl of the water dye mixture and sealed with adhesive sealing film. The weighed portion of the plates and the sealing films was determined before and after the filling of the wells. The roller was used to ensure a firm seal. The PCR plates were then put into the thermal cycler Biometra T1 and a PCR run was performed (table 1).

Temperatures and times during the thermal cycler process (table 1)

Temperature	Time
94 °C	3 min
94 °C	30 sec
50 °C	30 sec
72 °C	30 sec
72 °C	10 min

Finally, the weighting portion of the PCR plates was examined again.

Analysis and Results



The percentaged evaporation losses of the different PCR systems were determined and represented in a graph (figure 1).

Conclusion

To obtain successful PCR results it is important to use a harmonizing PCR system. The PCR plates have to be securely sealed to preserve the generated PCR products. The adhesive surface of the highly transparent self-adhesive sealing film of BRAND goes hand in hand with the surface of the BRAND PCR plates. The encapsulated, pressure sensitive adhesive keeps the film easy to handle and non-tacky to the touch. After sealing, areas above the sample wells remain adhesive free and do not distort PCR samples. On top the ultra-thin liner and high transparency allow detection of smallest signals during the Real-Time PCR.

BRAND GMBH + CO KG
P.O. Box 1155 | 97861 Wertheim | Germany
T +49 9342 808 0 | F +49 9342 808 98000 | info@brand.de | www.brand.de

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Further information on products and applications can be found on our YouTube channel: **mylabBRAND**

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BRAND (Shanghai) Trading Co., Ltd.
Shanghai, China

T +86 21 6422 2318
info@brand.com.cn
china.brand.com.cn

BRAND Scientific Equipment Pvt. Ltd.
Mumbai, India

T +91 22 42957790
customersupport@brand.co.in
www.brand.co.in

BRANDTECH® Scientific, Inc.
Essex, CT. United States of America

T +1 860 767 2562
info@brandtech.com
www.brandtech.com

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