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Microplate Adhesive Seals

Adhesive Seals: Cost Efficient Solutions for Microplate Sealing

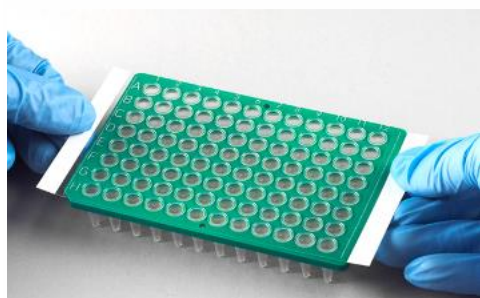
We offer the widest range of adhesive sealing solutions for PCR, assay and storage microplates available on the market. You have the option to choose your seal based on a wide variety of properties offered including: peelability, pierceability, gas permeability, optical clarity, temperature stability and solvent resistance.

Most of our adhesive sheet seals are supplied with convenient tabs on both ends for ease of application. These tabs enable easy peeling for sealing removal without leaving adhesive residue on the sealing surface. A number of our seals come in various roll formats compatible with most roll sealers on the market, for ease of use or for automation.

For best results with adhesive seals we recommend the use of high quality plates, such as Azenta Life Sciences microplates, with superior flatness for optimal seal application. PCR/qPCR plates should have raised well rims to facilitate effective sealing and prevent well to well contamination.

All adhesive seals are produced according to our ISO standard manufacturing, and are DNase, RNase, human genomic DNA, endotoxin/pyrogen free. We also offer sterilization of all of our seal materials as a custom option. If your seal of choice is not offered sterile as a stock product, then please contact us to discuss your needs.

qPCR Adhesive Seal



4ti-0560 | qPCR Adhesive Seal

Optically clear adhesive film, pressure activated adhesive, peelable; suitable for qPCR and other imaging techniques including crystallization

Overview

Optically clear seal specifically developed for optical applications, particularly qPCR. It is non sticky when removed from the packaging; this aids handling when wearing gloves. The adhesive is contained within small capsules, allowing light to pass through to ensure the optical clarity of the seal. When the seal is in position, pressure can be applied to burst the capsules, releasing a strong

adhesive only where the seal touches the raised well rims of the plate - the rest of the seal area above the wells remains optically clear.

Key Features

- **Quality & Properties**
 - Non-pierceable
 - Peelable
 - Seal integrity range: -80°C to 110°C
 - Free from DNase, RNase, and human genomic DNA
 - Non-sterile
- **Use**
 - Applications: qPCR and other fluorescent applications, plate readers, microscopy and protein crystallization (96 or 384 well)
 - Removal: will not leave a sticky residue on the plate surface following removal
 - Replacement for: ABI® MicroAmp Optical Adhesive film, Absolute qPCR plate seals and Roche LightCycler® sealing foils
- **Options**
 - Sheet format: 140 x 77mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates with 96 round wells
 - Roll format: 100m x 80mm, approx. 700 seals

Specifications

- This is a pressure-activated seal: the adhesive is released when pressure is applied firmly and evenly to the seal
- Our Adhesive Seal Roller and Adhesive Seal Applicator are ideal for use with this product
- We also recommend the use of our Optical Film Compression Pad during PCR with this product

Ordering Information

Use these part numbers to request a quote, a sample or to contact an expert:

Part number	Description
qPCR Adhesive Seal Optically clear adhesive film, pressure activated adhesive, peelable; suitable for qPCR and other imaging techniques including crystallization	
4ti-0560 BUY ONLINE*	sheets (140 x 77mm); 100 sheets
4ti-0561	roll (100m x 80mm, approx. 700 seals); 1 roll
4ti-0561S	sample roll (5m x 80mm); 1 sample roll

**Online availability to US only*

Optically Clear Windowed qPCR Seal



4ti-0565 | Optically Clear Windowed qPCR Seal | Peeling Detail

Adhesive film with 96 optically clear windows, peelable; suitable for qPCR and optical applications

Overview

These unique seals combine the strong sealing integrity of our PCR Seal with improved optical properties, thanks to the 96 adhesive-free windows. The seal is made of a durably transparent polyester film, and a strong adhesive is applied across the seal, apart from the 96 round windows. The Optically Clear Windowed qPCR Seal is recommended for qPCR and other optical applications, such as fluorescence or colorimetric measurements.

For all adhesive seals, the best sealing results are achieved using the hand held Adhesive Seal Roller (4ti-0502).

Key Features

- **Quality & Properties**
 - Non-pierceable
 - Peelable
 - Seal integrity range: -20°C to 110°C
 - Free from DNase, RNase, and human genomic DNA
- **Use**
 - Applications: qPCR, plate readers
 - **For 96-well microplates only**
 - Removal: will not leave a sticky residue on the plate surface following removal
 - Suitable for cutting to fit part plates
- **Options**
 - Sheet format: 133 x 76mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates with 96 round wells
 - Non-sterile as standard; sterilization available upon request

Ordering Information

Use these part numbers to request a quote, a sample or to contact an expert:

Part number	Description
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Optically Clear Windowed qPCR Seal

Adhesive film with 96 optically clear windows, peelable; suitable for qPCR and optical applications

4ti-0565*

sheets (133 x 76mm); 100 sheets

**Not available for purchase in or onward distribution to the USA*

PCR Seal



4ti-0500 | PCR Seal

Clear adhesive film, strong adhesive, peelable; suitable for PCR and optical applications; available as a full sheet, perforated for tearing into 8 well strips or 12 well strips

Overview

Our PCR Seal is a durable transparent polyester film with a strong adhesive layer. The seal enables a high integrity and efficiently prevents sample evaporation. It is recommended for PCR, qPCR, and other optical applications (e.g. fluorescence or colorimetric measurements) as well as sample storage.

The PCR Seal is also available in two flexible formats with perforated sheets, to enable tearing into 8 well and 12 well strips, respectively. This allows for sealing of complete 96 well plates, but also individual or multiple divisible plate strips, perfectly complementing these products

For all adhesive seals, the best sealing results are achieved using the hand held Adhesive Seal Roller (4ti-0502)

Key Features

- **Quality & Properties**
 - Non-pierceable, please refer to our PCR Foil Seal Strong for a pierceable variant
 - Peelable
 - Seal integrity range: -20°C to 110°C
 - Non-sterile
 - Free from DNase, RNase, and human genomic DNA
- **Use**
 - Applications: PCR, qPCR
 - Removal: features adhesive-free end tabs for easy removal, will not leave a sticky residue on the plate surface following removal
- **Options**

- Sheet format: 135 x 80mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates
- Perforated sheet format: 115 x 100mm, for tearing into 8 well strips
- Perforated sheet format: 137 x 71mm, for tearing into 12 well strips

Ordering Information

Use these part numbers to request a quote, a sample or to contact an expert:

Part number	Description
PCR Seal Clear adhesive film, strong adhesive, peelable; suitable for PCR and optical applications	
4ti-0500 BUY ONLINE*	sheets (135 x 80mm); 100 sheets
4ti-0500/8	perforated for tearing into part plates or 8 well strips, sheets (115 x 100mm); 100 sheets
4ti-0500/12	perforated for tearing into part plates or 12 well strips, sheets (137 x 71mm); 100 sheets

**Online availability to US only*

PCR Foil Seal



4ti-0550 | PCR Foil Seal

Pierceable adhesive aluminum foil, strong adhesive, peelable; suitable for high temperature applications

Overview

This aluminum foil seal has a strong acrylic adhesive which produces a seal of high integrity. It was developed for PCR and other high temperature applications due to its effectiveness in preventing sample evaporation. The PCR Foil Seal is pierceable; when pierced, the foil tears in an irregular manner which prevents the formation of a vacuum. It also has perforated end tabs for easy application and removal by peeling.

For all adhesive seals, the best sealing results are achieved using the hand held Adhesive Seal Roller (4ti-0502)

Key Features

- **Quality & Properties**
 - Pierceable
 - Peelable
 - Seal integrity range: -40°C to 120°C
 - Free from DNase, RNase, and human genomic DNA
- **Use**
 - Applications: PCR, incubation, storage
 - Suitable for cutting to fit part plates
- **Options**
 - Sheet format: 130 x 80mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates

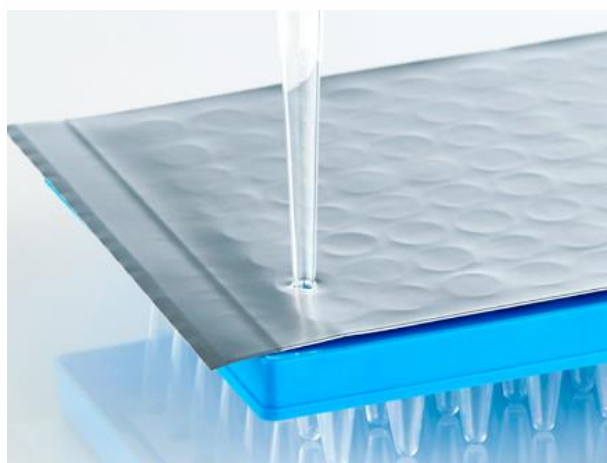
Ordering Information

Use these part numbers to request a quote, a sample or to contact an expert:

Part number	Description
PCR Foil Seal Pierceable adhesive aluminum foil, strong adhesive, peelable; suitable for high temperature applications	
4ti-0550 BUY ONLINE*	sheets (130 x 80mm); 100 sheets

**Online availability to US only*

PCR Foil Seal Strong



4ti-0500FL | PCR Foil Seal Strong | Piercing Detail

Adhesive aluminum foil, strong adhesive, peelable, pierceable; suitable for high temperature incubations and low temperature storage

Overview

Our PCR Foil Seal Strong is a pierceable aluminum foil seal with a strong acrylic adhesive, recommended for PCR and low temperature storage. This seal features all of the advantages of our PCR Seal, but in a pierceable format.

For all adhesive seals, the best sealing results are achieved using the hand held Adhesive Seal Roller (4ti-0502).

Key Features

- **Quality & Properties**
 - Pierceable
 - Peelable
 - Seal integrity range: -80°C to 110°C
 - Non-sterile
 - Free from DNase, RNase, and human genomic DNA
- **Use**
 - Applications: PCR, high temperature incubations, low temperature sample storage
- **Options**
 - Sheet format: 137 x 80mm

Ordering Information

Use these part numbers to request a quote, a sample or to contact an expert:

Part number	Description
PCR Foil Seal Strong Adhesive aluminum foil, strong adhesive, peelable, pierceable; suitable for high temperature incubations and low temperature storage	
4ti-0500FL	sheets (137 x 80mm); 100 sheets

DMSO Resistant Foil Seal



4ti-0512 | DMSO Resistant Foil Seal

Peelable adhesive foil, strong adhesive, high solvent resistance; suitable for long term storage

Overview

This aluminium foil seal has a chemically resistant silicone adhesive layer to produce a seal with high levels of solvent resistance, including to Dimethyl Sulfoxide (DMSO). For all adhesive seals, the best sealing results are achieved using the hand held Adhesive Seal Roller (4ti-0502).

Key Features

- **Properties**
 - Non-pierceable
 - Peelable
 - Seal integrity range: -20°C to 80°C
 - Free from DNase, RNase, and human genomic DNA
- **Use**
 - Applications: long-term plate storage, samples containing <80% Dimethyl Sulfoxide (DMSO) can be stored for up to 5 years
 - Removal: this seal will not leave a sticky residue on the plate surface following removal
 - Suitable for cutting to fit part plates
- **Options**
 - Sheet format: 122 x 80mm, to fit all standard SBS footprint plates, PCR and qPCR plates and part plates, microplates, assay and storage plates
 - Non-sterile as standard; sterilization available upon request

Ordering Information

Use these part numbers to request a quote, a sample or to contact an expert:

Part number	Description
DMSO Resistant Foil Seal Peelable adhesive foil, strong adhesive, high solvent resistance; suitable for long term storage	
4ti-0512	sheets (122 x 80mm); 100 sheets

Pierceable Film Strong Adhesive, 96 Cross-Cut Windows



4ti-0566 | Pierceable Film Strong Adhesive, 96 Cross-Cut Windows | Piercing Detail

Strong adhesive seal cross-cut windows, peelable, pierceable; suitable for 96 well plates (auto samplers, HPLC, sequencers)

Overview

This strong adhesive seal was developed to facilitate easy sample removal with a manual or automated system. The seal is optically clear, being made from a transparent polyester film, and has a strong adhesive applied across the underside of the seal, except for 96 round windows which align to the 96 wells of a plate. The optical windows are cross-cut, allowing for easy access to the sample wells with a tip or probe with minimal pressure.

For all adhesive seals, the best sealing results are achieved using the hand held Adhesive Seal Roller (4ti-0502).

Key Features

- **Quality & Properties**
 - Pierceable
 - Peelable
 - Seal integrity range: -20°C to 110°C
 - Non-sterile
 - Free from DNase, RNase, and human genomic DNA
- **Use**
 - Applications: sample application or retrieval, for use in automated systems and sample analyzers such as HPLC and DNA sequencers
 - Removal: will not leave a sticky residue on the plate surface following removal
 - Suitable for cutting to fit part plates
 - Replacement for: ABI® septa mats on capillary sequencers and to replace silicone and EVA storage plate cap mats
- **Options**
 - Sheet format: 135 x 77mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates with 96 round wells

Ordering Information

Use these part numbers to request a quote, a sample or to contact an expert:

Part number	Description
Pierceable Film Strong Adhesive, 96 Cross-Cut Windows Strong adhesive seal cross-cut windows, peelable, pierceable; suitable for 96 well plates (auto samplers, HPLC, sequencers)	
4ti-0566*	sheets (135 x 77mm); 100 sheets

**Not available for purchase in or onward distribution to the USA*

Moisture Barrier Seal



4ti-0516/24 | Moisture Barrier Seal 24

Gas permeable adhesive film, optically clear, with adhesive free windows, peelable, pierceable, sterile; suitable for cell culture

Overview

This unique seal has optically clear adhesive free windows; these windows can be imaged through, and also allow for gas exchange. The clear film is made of a porous material which allows for a uniform air and CO₂ exchange, whilst acting as a moisture barrier and preventing evaporation. The seal is coated with a strong adhesive (except for the optical windows) which has a high sealing integrity. This ensures a reliable seal and prevention of well-to-well contamination.

The gas permeable seal enables long term incubations without intervention, whilst allowing for imaging through the optically clear windows. This can reduce the risk of sample contamination, evaporation and can improve your experimental workflow. Use of this seal within plate readers can prevent moisture release into the sensitive equipment.

A number of plate reader manufacturers recommend the use of the our Moisture Barrier Seal 24, 96, 384. For all adhesive seals, the best sealing results are achieved using the hand held Adhesive Seal Roller (4ti-0502).

Key Features

- **Quality & Properties**
 - Pierceable
 - Peelable
 - Seal integrity range: -20°C to 80°C
 - Gas permeability rate: 0.6m³/m²/day
 - Moisture vapor transmission rate: 1g/m²/day
 - Optically clear for imaging
 - Sterile
 - Free from RNase and DNase
- **Use**
 - Applications: plate readers, eukaryotic cell culture, bacterial cell culture, long-term incubation, live cell assays, confocal microscopy
- **Options**
 - Sheet format: 140 x 80mm (4ti-0516/24) and 137 x 80mm (4ti-0516/96 and 4ti-0516/384)
 - Available with 24/96/384 adhesive free windows for use with 24/96/384 well plates

Ordering Information

Use these part numbers to request a quote, a sample or to contact an expert:

Part number	Description
Moisture Barrier Seal 24, 96, 384 Gas permeable adhesive film, optically clear, with adhesive free windows, peelable, pierceable, sterile; suitable for cell culture	
4ti-0516/24*	sheets with 24 adhesive free windows (137 x 80mm); 5 packs of 10 sheets
4ti-0516/96*	sheets with 96 adhesive free windows (137 x 76mm); 5 packs of 10 sheets
4ti-0516/384*	sheets with 384 adhesive free windows (137 x 76mm); 5 packs of 10 sheets

**Not available for purchase in or onward distribution to the USA*

Cell Culture Adhesive Seal



4ti-0517 | Cell Culture Adhesive Seal

Gas permeable adhesive seal, peelable; suitable for cell culture

Overview

Our Cell Culture Adhesive Seal is a gas permeable adhesive seal which seals assay and tissue culture plates, microplates and storage plates. The seal prevents evaporation and contamination whilst enabling cells to breathe. It is made of a non-woven fiber with an acrylate adhesive layer for effective sealing. The seal has a low moisture transfer rate and a porosity enabling gas exchange.

Due to its paper-based material it should not be used in wet conditions. The seal is suitable for cell culture and enables long term culture with significantly reduced evaporation. For all adhesive seals, the best sealing results are achieved using the hand held [Adhesive Seal Roller](#) (4ti-0502).

Key Features

- **Quality & Properties**
 - Peelable
 - Seal integrity range: -20°C to 40°C
 - Gas permeability rate: 8,900m³/m²/day

- Moisture vapor transmission rate (very low): 4,200g/m²/day
 - Air porosity: 10 sec/100 cc/in²
 - RNase/DNase free
- Use**
 - Application: bacterial and eukaryotic cell culture
- Options**
 - Sheet format: 135 x 80mm
 - Available sterile (4ti-0517/ST)

Ordering Information

Use these part numbers to request a quote, a sample or to contact an expert:

Part number	Description
Cell Culture Adhesive Seal Gas permeable adhesive seal, peelable; suitable for cell culture	
4ti-0517	sheets (135 x 80mm); 100 sheets
4ti-0517/ST	sterile, sheets (135 x 80mm); 10 x 10 sheets

Microplate Seal Low Strength Adhesive Film



4ti-0510 | Microplate Seal Low Strength Adhesive Film | Detail

Low strength adhesive film, transparent, peelable; suitable for short term storage

Overview

This transparent polyester-based film has a low strength adhesive. It is designed as a low-cost sealing option, and useful for temporary storage and as a cover for applications such as centrifugation. End tabs allow for easy application and removal. This seal is removable without residue on the plate.

For all adhesive seals, the best sealing results are achieved using the hand held Adhesive Seal Roller (4ti-0502).

Key Features

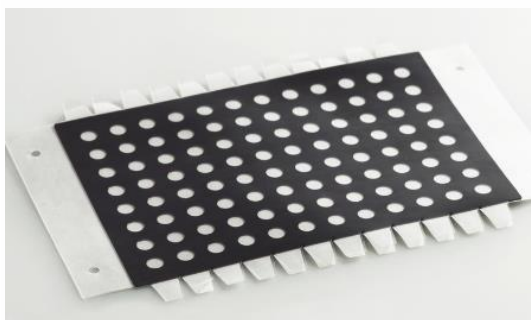
- **Quality & Properties**
 - Non-pierceable
 - Peelable
 - Seal integrity range: -20°C to 80°C
 - Free from DNase, RNase, and human genomic DNA
- **Use**
 - Applications: sample storage (aqueous samples only)
 - Suitable for all plate types
- **Options**
 - Sheet format: 130 x 80mm

Ordering Information

Use these part numbers to request a quote, a sample or to contact an expert:

Part number	Description
Microplate Seal Low Strength Adhesive Film Low strength adhesive film, transparent, peelable; suitable for short term storage	
4ti-0510	sheets (130 x 80mm); 100 sheets

Double Sided Re-Sealable Adhesive Film



4ti-0519 | Double Sided Re-Sealable Adhesive Film

Double sided adhesive film, black, with 96 holes and a protective liner, peelable; suitable for re-sealing without the need for a heat sealer

Overview

A double sided black adhesive microplate film to facilitate the sealing, accessing (piercing) and resealing of Removable 8 Well PCR Tube Strips (4ti-0753) prior to PCR. The strips or plates are filled with reagents and sealed with Pierce Heat Seal (4ti-0530) resulting in lowest evaporation and best possible long-term storage. With the use of a pierceable seal, samples can easily be added at the point of diagnostic use.

The protective Double Sided Re-Sealable Adhesive Film makes sure there will be no damage to the Pierce Heat Seal during transportation. The Double Sided Re-Sealable Adhesive Film is overlaid and the strips or plates processed with a cutter into individually sealed strips. The strips can then be transported and opened at a customer site by peeling off the protective layer of the Double Sided Re-Sealable Adhesive Film and accessing the sample through the Pierce Heat Seal. The strips can then be resealed with a foil or film which is applied to the exposed black adhesive without the need for a heat sealer.

For all adhesive seals, the best sealing results are achieved using the hand held Adhesive Seal Roller (4ti-0502).

Key Features

- **Properties**
 - Peelable
 - Resealable
 - Seal integrity range: -20°C to 110°C
 - Free from RNase and DNase
- **Use**
 - Applications: ideal for kit manufactures to allow flexible access to individual wells
- **Options**
 - Sheet format: 148 x 98mm, to fit all SBS footprint 96 well plates, designed to work with PCR Plates for 8 Well Removable Tube Strips, and divisible plate ranges

Ordering Information

Use these part numbers to request a quote, a sample or to contact an expert:

Part number	Description
Double Sided Re-Sealable Adhesive Film Double sided adhesive film, black, with 96 holes and a protective liner, peelable; suitable for re-sealing without the need for a heat sealer	
4ti-0519	sheets (148 x 98mm including liner); 100 sheets

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