Архангельск (8182)63-90-72 Астана (7172)727-132 Астрахань (8512)99-46-04 Барнаул (3852)73-04-60 Белгород (4722)40-23-64 Брянск (4832)59-03-52 Владивосток (423)249-28-31 Волгоград (844)278-03-48 Вологда (8172)26-41-59 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89 Иваново (4932)77-34-06

Ижевск (3412)26-03-58 Иркутск (395)279-98-46 Казань (843)206-01-48 Калининград (4012)72-03-81 Калуга (4842)92-23-67 Кемерово (3842)65-04-62 Киров (8332)68-02-04 Краснодар (861)203-40-90 Красноярск (391)204-63-61 Курск (4712)77-13-04 Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13 Москва (495)268-04-70 Мурманск (8152)59-64-93 Набережные Челны (8552)20-53-41 Нижний Новгород (831)429-08-12 Новокузнецк (3843)20-46-81 Новосибирск (383)227-86-73 Омск (3812)21-46-40 Орел (4862)44-53-42 Оренбург (3532)37-68-04 Пенза (8412)22-31-16

Пермь (342)205-81-47 Ростов-на-Дону (863)308-18-15 Рязань (4912)46-61-64 Самара (846)206-03-16 Санкт-Петербург (812)309-46-40 Саратов (845)249-38-78 Севастополь (8692)22-31-93 Симферополь (3652)67-13-56 Смоленск (4812)29-41-54 Сочи (862)225-72-31 Ставрополь (8652)20-65-13

Сургут (3462)77-98-35 Тверь (4822)63-31-35 Томск (3822)98-41-53 Тула (4872)74-02-29 Тюмень (3452)66-21-18 Ульяновск (8422)24-23-59 Yda (347)229-48-12 Хабаровск (4212)92-98-04 Челябинск (351)202-03-61 Череповец (8202)49-02-64 Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47

Россия (495)268-04-70

Казахстан (772)734-952-31 https://azenta.nt-rt.ru/ || aez@nt-rt.ru

Heat Seals: the Gold Standard in Microplate Sealing

Pierce Heat Seal



4ti-0531 | Pierce Heat Seal | Piercing Detail

Pierceable heat sealing foil, high solvent resistance, resealable, suitable for PCR/storage/shipping

Overview

Heat sealing offers a 100% effective method of plate sealing, for complete seal integrity, as well as being quick and cost effective. Pierce Heat Seal is compatible with polypropylene and polystyrene plates. This seal demonstrates good solvent resistance and can be used for low temperature and room temperature compound storage in DMSO and organic solvents.

Pierce Heat Seal can be pierced with a pipette tip manually, or by a liquid handling robot. This seal can be resealed by applying another Pierce Seal straight on top of a previously pierced seal. A blue stripe on the sheet foils clearly indicates the non-sealing surface, for ease of seal orientation and handling. Pierce Heat Seal sheets are also available with a printed grid reference on the nonsealing surface.

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer. Also available in multiple roll formats compatible with specified automated heat sealers, such as our Automated Roll Heat Sealer.

Key Features

Quality & Properties

- Pierceable
- Resealable

- Seal integrity range: -20°C to 120°C 0
- Good solvent resistance 0
- Autoclavable (121°C)
- Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen
- Use
 - Seals polypropylene and polystyrene plates 0
 - Suitable for long term storage
- Options
 - Sheet format: 125 x 78mm, to fit all standard SBS footprint PCR and qPCR plates, 0 microplates, assay and storage plates, from 12 well to 1536 well
 - Roll format: available in a variety of roll dimensions, to suit your choice of automatic 0 heat sealing equipment
 - Available with printed grid reference (in sheet format, 4ti-0531/GR)
 - Non-sterile as standard; sterilization available upon request
 - Custom printing available on request

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

Part number	Description	
Pierce Heat Seal Pierceable heat sealing	Pierce Heat Seal Pierceable heat sealing foil, high solvent resistance, resealable, suitable for PCR/storage/shipping	
4ti-0530 BUY ONLINE*	roll (610m x 78mm, approx. 5,000 seals) ¹ ; 1 roll	
4ti-0530/122	roll (122m x 78mm, approx. 1,000 seals) ¹ ; 1 roll	
4ti-0530/REMP	roll (610m x 78mm, approx. 5,000 seals) ³ ; 1 roll	
4ti-0530S	sample roll (5m x 78mm) ¹ ; 1 sample roll	
4ti-0532	roll (500m x 115mm, approx. 6,200 seals) ² ; 1 roll	
4ti-0532/REMP	roll (500m x 115mm, approx. 6,200 seals)⁴; 1 roll	
4ti-0532S	sample roll (5m x 115mm) ² ; 1 sample roll	
4ti-0531 BUY ONLINE*	sheets (125 x 78mm); 100 sheets	
4ti-0531/GR	sheets (125 x 78mm), with printed grid reference; 100 sheets	
*Online availability to US only	/	

Individual Access Pierce Heat Seal



4ti-0531/RA | Individual Access Pierce Heat Sea

Pierceable heat sealing foil, 96 individual seals in sheet format, high solvent resistance, resealable; suitable for PCR/storage/shipping

Overview

Heat sealing offers a 100% effective method of plate sealing, for complete seal integrity, as well as being quick and cost effective. Individual Access Pierce Heat Seal is compatible with polypropylene and polystyrene plates, featuring 96 individual foil seal spots on a removable backing.

This seal demonstrates good solvent resistance and can be used for low temperature and room temperature compound storage in DMSO and organic solvents. These seals result in individually sealed tubes, and they can be pierced with a pipette tip manually, or by a liquid handling robot. Individual Access Pierce Heat Seal can be resealed by applying another Individual Access Pierce Seal straight on top of a previously pierced seal.

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer

Key Features

• Quality & Properties

- o 96 individual foil seal spots on a removable backing
- Pierceable
- 4 pin holes for exact positioning in special adapters of the Semi-Automated Sheet Heat Sealer
- o Resealable
- Seal integrity range: -20°C to 120°C
- Good solvent resistance
- Autoclavable (121°C)
- Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen
- Use
 - Seals polypropylene and polystyrene plates
 - Suitable for long term storage
 - Best used in combination with our Individual Access plates
- Options
 - Sheet format: 127 x 100mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates
 - Non-sterile as standard; sterilization available upon request

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

Pierce Heat Seal Strong



4ti-05381 | Pierce Heat Seal Strong | Piercing Detail

Strong heat sealing foil, peelable from COC plates, pierceable, suitable for PCR, sample shipping, compound storage

Overview

Heat sealing offers a 100% effective method of plate sealing, for complete seal integrity, as well as being quick and cost effective. Pierce Heat Seal Strong is compatible with polypropylene and COC plates. This seal is peelable from COC plates and gives a weld seal to polypropylene plates.

Demonstrating good solvent resistance it can be used for low temperature and room temperature compound storage in DMSO and organic solvents. The seal can be pierced with a pipette tip manually, or by a liquid handling robot. Applications include PCR, sample shipping, low and room temperature compound storage with DMSO and other organic solvents.

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer. Also available in multiple roll formats compatible with specified automated heat sealers, such as our Automated Roll Heat Sealer.

Key Features

• Quality & Properties

- Pierceable
- Peelable from COC plates
- Seal integrity range: -20°C to 120°C
- Good solvent resistance
- Gives a weld seal to polypropylene plates
- Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen

- Use
 - Seals polypropylene and COC plates
 - Recommended for PCR, sample shipping, low and room temperature compound storage with DMSO and other organic solvents
 - Suitable for long term storage
- Options
 - Sheet format: 125 x 78mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates, from 12 well to 1536 well
 - $_{\odot}$ Roll format: available in two roll dimensions: 610m x 78mm, and 500m x 115mm
 - Custom printing available upon request
 - Non-sterile as standard; sterilization available upon request

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

Part number	Description	
Pierce Heat Seal Strong Strong heat sealing foil, peelable from COC plates, pierceable, suitable for PCR, sample shipping, compound storage		
4ti-0538	roll (610m x 78mm, approx. 5,000 seals) ¹ ; 1 roll	
4ti-0538S	sample roll (5m x 78mm); 1 sample roll	
4ti-0539	roll (500m x 115mm, approx. 6,200 seals) ² ; 1 roll	
4ti-0539S	sample roll (5m x 115mm); 1 sample roll	
4ti-05381	sheets (125mm x 78mm); 100 sheets	

Individual Access Pierce Heat Seal Strong



96 individual foil seal spots on a removable backing, for sealing of individual wells; suitable for storage or PCR

Individual Access Pierce Heat Seal Strong features 96 individual foil seal spots on a removable backing. These seals result in individually sealed tubes that are pierceable, allowing for sample addition straight into pre-dispensed reagents, without fiddly removal of the seal.

Individual Access Pierce Heat Seal Strong is compatible with polypropylene and COC plates. This seal is peelable from COC plates and gives a weld seal to polypropylene plates. Demonstrating good solvent resistance, it can be used for low temperature and room temperature compound storage in DMSO and organic solvents. The seal can be pierced with a pipette tip manually, or by a liquid handling robot. Applications include sample shipping, storage and PCR.

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer (using the 59-2005 Individual Access adapter).

Key Features

• Quality & Properties

- 96 individual foil seal spots on a removable backing
- $_{\odot}$ 4 pin holes for exact positioning in special adapters of the Semi-Automated Sheet Heat Sealer
- Seals polypropylene (weld seal) and COC (peelable seal) plates
- Pierceable
- Seal integrity range: -20°C to 120°C
- Good solvent resistance
- Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen
- Use
 - Recommended for PCR, sample shipping, low and room temperature compound storage with DMSO and other organic solvents
 - Best used in combination with our Individual Access plates
- Options
 - Sheet format: 127mm x 100mm

Ordering Information

Part number	Description
Individual Access Pierce Heat Seal Strong 96 individual foil seal spots on a removable backing, for sealing of individual wells; suitable for storage or	
4ti-05381/RA	sheets (127 x 100mm); 100 sheets
4ti-0539/RA	roll (420m x 100mm, approx. 3,200 sealed PCR plates); 1 roll

Peel Heat Seal



4ti-0521 | Peel Heat Seal | Peeling Detail

Peelable heat sealing foil; suitable for low temperature storage, high temperature uses and PCR

Overview

Heat sealing offers a 100% effective method of plate sealing, for complete seal integrity, as well as being quick and cost effective. Our Peel Heat Seal is a laminate seal compatible with polypropylene plates. It can be removed from polypropylene plates by peeling, even with a plate which has been removed directly from -80°C storage.

Peel Heat Seal forms a complete seal to a plate enabling very low temperature uses, including very low temperature storage, and high temperature uses, such as PCR (when used with a pressurized heated lid). The seal demonstrates moderate solvent resistance and can be utilized for short term compound storage at room temperature.

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer. Also available in multiple roll formats compatible with specified automated heat sealers, such as our Automated Roll Heat Sealer.

Key Features

Quality & Properties

- Peelable from polypropylene and COC plates
- Seal integrity range: -80°C to 90°C (110°C when used with pressurized heated lid)
- Good solvent resistance including DMSO
- Autoclavable (121°C)
- Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen
- Use
 - Suitable for short term room temperature storage
 - Suitable for very low temperature storage
- Options
 - Sheet format: 125 x 78mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates, from 12 well to 1536 well
 - Roll format: available in a variety of roll dimensions, to suit your choice of automatic heat sealing equipment
 - Non-sterile as standard; sterilization available upon request

Ordering Information

Part number	Description
Peel Heat Seal Peelable heat sealing foil; suitable for low temperature storage, high temperature uses and PCR	
4ti-0520 BUY ONLINE*	roll (610m x 78mm, approx. 5,000 seals) ¹ ; 1 roll
4ti-0520/122	roll (122m x 78mm, approx. 1,000 seals) ¹ ; 1 roll
4ti-0520S	sample roll (5m x 78mm) ¹ ; 1 sample roll
4ti-0522	roll (500m x 115mm, approx. 6,250 seals) ² ; 1 roll
4ti-0522S	sample roll (5m x 115mm)²; 1 sample roll
4ti-0521 BUY ONLINE*	sheets (125 x 78mm); 100 sheets

Individual Access Peel Heat Seal



4ti-0521/RA-TAB | Individual Access Peel Heat Seal, With Tabs

Peelable heat sealing foil, 96 individual seals with tabs, or 12 strips each covering 8 wells; suitable for very low temperature storage/high temperature uses/PCR

Overview

Heat sealing offers a 100% effective method of plate sealing, for complete seal integrity, as well as being quick and cost effective. Our Individual Access Peel Heat Seal is a laminate seal compatible with polypropylene plates, featuring 96 individual foil seal spots or 12 strips of individual spots on a removable backing. These seals result in individually sealed tubes/strips, and they can be removed from polypropylene plates by peeling, even with a plate which has been removed directly from - 80°C storage.

Individual Access Peel Heat Seal forms a complete seal to a plate enabling very low temperature uses, including very low temperature storage, and high temperature uses, such as PCR (when used with a pressurized heated lid). The seal demonstrates moderate solvent resistance and can be utilized for short term compound storage at room temperature.

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer (using the 59-2005 Individual Access adapter).

Key Features

- Quality & Properties
 - o 96 individual foil seal spots or 12 strips of 8 spots on a removable backing
 - 4 pin holes for exact positioning in special adapters of the Semi-Automated Sheet Heat Sealer
 - Peelable from polypropylene and COC plates
 - Seal integrity range: -80°C to 90°C (110°C when used with pressurized heated lid)
 - Good solvent resistance including DMSO
 - Autoclavable (121°C)
 - Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen
- Use
 - Suitable for short term room temperature storage
 - Suitable for very low temperature storage
 - Best used in combination with our Individual Access plates and divisible plates
- Options
 - Available as 96 individual seals with tabs per sheet
 - Also available as 12 strips of 8 individual seals per sheet
 - Sheet format: 127 x 100mm
 - 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

Individual Access Peel Heat Seal

Peelable heat sealing foil, 96 individual seals with tabs, or 12 strips each covering 8 wells; suitable for very low temperature storage/high temperature uses/PCR

4ti-0521/RA-TAB	96 individual seals with tabs, sheets (127 x 100mm); 100 sheets
4ti-0521/RA-8	12 strips, each covering 8 wells, sheets (127 x 100mm); 100 sheets

DMSO Resistant Peel Heat Seal



Solvent resistant heat sealing foil, peelable; suitable for low and room temperature compound storage

Overview

Our DMSO Resistant Peel Heat Seal is a foil seal compatible with polypropylene and forming an excellent seal to cyclic olefin copolymer (COC) plates. The solvent resistance of this seal enables its use for low and room temperature compound storage in Dimethyl Sulfoxide (DMSO) and organic solvents. 100% DMSO can be stored at room temperature for 12 months without deterioration of the seal.

It forms a weld seal to polyethylene plates and cannot be peeled off. Access is by piercing using a blade, needle, or our Pierce Plate (4ti-0398).

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer. Also available in multiple roll formats compatible with specified automated heat sealers, such as our Automated Roll Heat Sealer.

The sheet seals are inter-leaved with paper sheets to help denote which side is the sealing side and to aid removal of one sheet at a time from the pack.

Key Features

- Properties
 - Permanent seal to polyethylene
 - Peelable seal to polypropylene and COC
 - Seal integrity range: -80°C to 40°C
 - High solvent resistance, including 100% DMSO
 - Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen
- Use
 - Suitable for long term storage
- Option
 - Sheet format: 125 x 78mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates, from 12 well to 1536 well
 - Roll format: available in a variety of roll dimensions, to suit your choice of automatic heat sealing equipment
 - Non-sterile as standard; sterilization available upon request

Ordering Information

Part number	Description	
DMSO Resistant Peel Heat Seal Solvent resistant heat sealing foil, peelable; suitable for low and room temperature compound storage		
4ti-0585	roll (500m x 78mm, approx. 4,200 seals) ¹ ; 1 roll	
4ti-0585/100	roll (100m x 78mm, approx. 800 seals) ¹ ; 1 roll	

4ti-0585/REMP	roll (500m x 78mm, approx. 4,200 seals) ³ ; 1 roll
4ti-0585S	sample roll (5m x 78mm)¹; 1 sample roll
4ti-0586	roll (500m x 115mm, approx. 6,200 seals)²; 1 roll
4ti-0586/REMP	roll (500m x 115mm, approx. 6,200 seals)⁴; 1 roll
4ti-0586S	sample roll (5m x 115mm)²; 1 sample roll
4ti-0587	sheets (125 x 78mm) on perforated roll; 100 sheets

Universal Peel Heat Seal



4ti-05231 | Universal Peel Heat Seal | Peeling Detail

Peelable heat sealing foil with wide material compatibility; suitable for low temperature storage, high temperature uses and PCR

Overview

Heat sealing offers a 100% effective method of plate sealing, for complete seal integrity, as well as being quick and cost effective. Our Universal Peel Heat Seal is a laminate seal compatible with PP, PE, PS, COC and PC plates, providing the highest flexibility in plate material choice. Sample access is possible by peeling from the compatible materials and also by piercing the seal with needles, but not with plastic tips. It is resealable by applying another Universal Peel Heat Seal directly on top of a previously pierced seal.

Universal Peel Heat Seal forms a complete seal to a plate enabling low temperature uses as well as high temperature uses, such as PCR (when used with a pressurized heated lid). The seal demonstrates moderate solvent resistance. Use of Universal Peel Heat Seal makes roll changes unnecessary even for customers using different microplate materials, because with minor adjustments of sealing parameters all common microplate materials can be sealed to.

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer. Also available in multiple roll formats compatible with specified automated heat sealers, such as our Automated Roll Heat Sealer.

• Quality & Properties

- Pierceable with needle, but not with standard pipette tips
- Peelable
- Seal integrity temperature range: -80°C to 90°C (110°C when used with a pressurized heated lid)
- Autoclavable (121°C)
- Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen
- Use
 - Suitable for low temperature sample storage and high temperature uses, such as PCR
 - Compatible with PP, PE, PS, COC and PC plates
 - Wide material compatibility allows for high throughput sealing of different plates without the need for roll changes
 - Resealable by applying another Universal Peel Heat Seal directly on top of a previously pierced seal

• Options

- Sheet format: 125mm x 78mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates, from 12 well to 1536 well
- Roll format: available in two roll dimensions, to suit your choice of automatic heat sealing equipment

Ordering Information

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

Part number	Description	
Universal Peel Heat Seal Peelable heat sealing foil with wide material compatibility, suitable for low temperature storage, high temperature uses and PCR		
4ti-0523	roll (610m x 78mm, approx. 5,000 seals) ¹ ; 1 roll	
4ti-0523S	sample roll (5m x 78mm); 1 sample roll	
4ti-0524	roll (500m x 115mm, approx. 6,250 seals)²; 1 roll	
4ti-0524S	sample roll (5m x 115mm); 1 sample roll	
4ti-05231	sheets (125mm x 78mm); 100 sheets	

Clear Heat Seal



4ti-0541 | Clear Heat Seal

Peelable heat sealing film, optically clear; suitable for qPCR and optical applications

Overview

Heat sealing offers a 100% effective method for plate sealing for a complete seal integrity, as well as being quick and cost effective. Our Clear Heat Seal is an optically clear laminate film forming a peelable seal to polypropylene, polyethylene, polystyrene, polycarbonate and cyclic olefin copolymer (COC) plates. Samples can also be accessed by pre-piercing with a blade, needle or our Pierce Plate (4ti-0398).

The optical clarity of this seal enables its use for sealing plates required for imaging use, including fluorescent detection methods such as qPCR and colorimetric assays. The Clear Heat Seal forms a complete seal to a plate enabling both low temperature uses, including low temperature storage, and high temperature uses, such as PCR (when used with a pressurized heated lid). This seal demonstrates moderate solvent resistance and can be utilized for short term compound storage at room temperature.

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer. Also available in multiple roll formats compatible with specified automated heat sealers, such as our Automated Roll Heat Sealer.

Our sheet seals are inter-leaved with paper sheets to help denote which side is the sealing side and aid removal of one sheet at a time from the pack. For applications requiring high tensile strength (e.g. bead mill applications) please see our Clear Heat Seal Plus.

Key Features

Quality & Properties

- Peelable
- Seal integrity range: -80°C to 80°C (to 110°C with a pressurized heated PCR lid)
- Optically clear
- Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen
- Use
 - Applications: imaging, fluorescent detection, and colorimetric assays
 - Suitable for PCR and qPCR
 - Seals polypropylene, polyethylene, polystyrene, polycarbonate and cyclic olefin copolymer (COC) plates
- Options
 - Sheet format: 125 x 78mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates, from 12 well to 1536 well
 - Roll format: available in a variety of roll dimensions, to suit your choice of automatic heat sealing equipment
 - o Non-sterile as standard; sterilization available upon request

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

Part number	Description	
Clear Heat Seal Peelable heat sealing film, optically o	Clear Heat Seal Peelable heat sealing film, optically clear, suitable for qPCR and optical applications	
4ti-0540 BUY ONLINE*	roll (500m x 78mm, approx. 4,200 seals) ¹ ; 1 roll	
4ti-0540/80	roll (80m x 78mm, approx. 640 seals) ¹ ; 1 roll	
4ti-0540/REMP	roll (500m x 78mm, approx. 4,200 seals) ³ ; 1 roll	
4ti-0540S	sample roll (5m x 78mm)¹; 1 sample roll	
4ti-0542	roll (350m x 115mm, approx. 4,400 seals) ² ; 1 roll	
4ti-0542/REMP	roll (350m x 115mm, approx. 4,400 seals)⁴; 1 roll	
4ti-0542S	sample roll (5m x 115mm)²; 1 sample roll	
4ti-0541 BUY ONLINE*	sheets (125mm x 78mm); 100 sheets	

Clear Heat Seal Plus



4ti-05481 | Clear Heat Seal Plus | Peeling Detail

High tensile strength heat sealing film, optically clear, peelable; suitable for bead mill applications

Heat sealing offers a 100% effective method for plate sealing for a complete seal integrity, as well as being quick and cost effective. Our Clear Heat Seal Plus is a clear polymer film forming a peelable seal to polypropylene, polystyrene and cyclic olefin copolymer (COC) plates. The excellent tensile strength of this seal enables its use for sealing of microplates during homogenization or disruption of seeds or other material such as bead mill applications.

Clear Heat Seal Plus forms a complete seal to a plate also enabling short term sample storage. The Clear Heat Seal Plus is thicker than our standard Clear Heat Seal for application requiring high tensile strength, but is not as suitable for optical applications due to decreased transmission through the thicker sealing layers. For optical applications please refer to our Clear Heat Seal.

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer. Also available in multiple roll formats compatible with specified automated heat sealers, such as our Automated Roll Heat Sealer.

Key Features

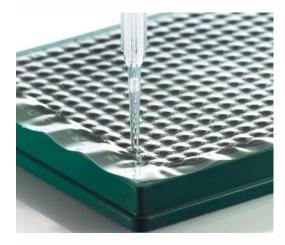
Quality & Properties

- Peelable
- Seal integrity range: -80°C to 80°C (110°C with a pressurized heated lid)
- High tensile strength for bead mill applications
- Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen
- Use
 - Applications: suitable for bead mill applications and PCR
- Options
 - Sheet format: 125 x 78mm, to fit all standard SBS footprint PCR plates, microplates, assay and storage plates, from 12 well to 1536 well
 - Roll format: available in two roll dimensions, to suit your choice of automatic heat sealing equipment
 - Non-sterile as standard; sterilization available upon request

Ordering Information

Part number	Description
Clear Heat Seal Plus High tensile strength heat sealing film, optically clear, peelable; suitable for bead mill applications	
4ti-0549	roll (250m x 78mm, approx. 2,100 seals) ² ; 1 roll
4ti-0549/S	sample roll (5m x 78mm)²; 1 sample roll
4ti-0548	roll (250m x 115mm, approx. 3,140 seals) ¹ ; 1 roll
4ti-0548/S	sample roll (5m x 115mm)¹; 1 sample roll

Clear Heat Seal Easily Pierceable



Thin polyester heat sealing film, easily pierceable with autosampler needles/ABI® 3730; suitable for PCR, qPCR and optical applications

Overview

Heat sealing offers a 100% effective method for plate sealing for a complete seal integrity, as well as being quick and cost effective. Our Clear Heat Seal Easily Pierceable is an optically clear polyester backed film, forming a pierceable seal to polypropylene, polyethylene, polystyrene and cyclic olefin copolymer (COC) plates. The optical clarity of this seal enables its use for sealing plates required for imaging use, including fluorescent detection methods such as qPCR and colorimetric assays.

Its pierceability renders it useful for automation and for use on needle, capillary and tip based liquid handling systems. It is effective on the ABI 3730 capillary sequencer, removing the need for the use of expensive septa mats. The Clear Heat Seal Easily Pierceable forms a complete seal to a plate enabling moderately low and high temperature uses, including PCR when using a pressurized heated lid thermal cycler.

It demonstrates a moderate solvent resistance and can be utilized for short term compound storage. This seal is only available in multiple roll formats compatible with specified automated heat sealers, such as our Automated Roll Heat Sealer. A perforated roll is available, for easy removal of sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer.

Key Features

- Quality & Properties
 - Permanent seal
 - Easily pierceable with autosampler needles/ABI 3730
 - Seal integrity range: -20°C to 80°C (or 110°C when used with pressurized heated PCR lid)
 - Moderate solvent resistance
 - o Optically clear
 - Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen
- Use
 - Seals polypropylene, polyethylene, polystyrene and cyclic olefin copolymer (COC) plates
 - Suitable for capillary sequencers and automated liquid handlers, e.g. ABI 3730

- Suitable for PCR and qPCR, and short term storage
- Options
 - Roll format: available in a variety of roll dimensions, to suit your choice of automatic heat sealing equipment
 - Sheet format: 125 x 78mm, available from a roll with 1,000 perforated sheets; seals all SBS plate formats, from 12 well to 1536 well
 - Non-sterile as standard; sterilization available upon request

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

Part number	Description
Clear Heat Seal Easily Pierceable Thin polyester heat sealing film, easily pierceable with autosampler needles/ABI® 3730; suitable for PCR, qPCR and optical applications	
4ti-0580	roll (610m x 78mm, approx. 5,000 seals) ¹ ; 1 roll
4ti-0580/122	roll (122m x 78mm, approx. 1,000 seals) ¹ ; 1 roll
4ti-0580S	sample roll (5m x 78mm) ¹ ; 1 sample roll
4ti-0582	roll (500m x 115mm)²; 1 roll
4ti-0582S	sample roll (5m x 115mm)²; 1 sample roll
4ti-0581	sheets (125 x 78mm) on perforated roll; 1,000 sheets

Clear Heat Seal, Peelable Film



4ti-0541/SLIT | Clear Heat Seal, Peelable Film

Peelable heat sealing film, optically clear, with 3mm slits for gas transfer; suitable for insect studies, seed storage

Heat sealing is a quick and cost effective method of plate sealing. Our Clear Heat Seal, Peelable Film is based on our Clear Heat Seal, with the addition of 3mm slits across the width of the seal. These slits render the seal gas permeable, whilst retaining evaporation to a minimum, compared to the use of lids.

The Clear Heat Seal, Peelable Film is compatible with polypropylene, polyethylene, polystyrene and cyclic olefin copolymer (COC) plates. The seal can be removed by peeling, or it can be pierced with a pipette tip manually, using a liquid handling robot or with our Pierce Plate (4ti-0398).

The Clear Heat Seal, Peelable Film has a wider seal integrity temperature range, from -80°C to 110°C, than our Gas Permeable Heat Seal. It can be used for insect and seed storage, as it enables gas exchange, whilst providing an inert surface with no adhesive to interfere with the well contents.

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer. Also available in roll format compatible with specified automated heat sealers, such as our Automated Roll Heat Sealer.

Key Features

• Quality & Properties

- Peelable
- Seal integrity range: -80°C to 110°C
- 3mm slits for gas transfer
- Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen
- Use
 - Seals polypropylene, polyethylene, polystyrene and cyclic olefin copolymer (COC) plates
 - $_{\circ}$ $\,$ Suitable for insect and seed storage
- Options
 - Sheet format: 125 x 78mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates, from 12 well to 1536 well
 - Roll format: 500m x 78mm; approx. 4,200 seals
 - o Non-sterile as standard; sterilization available upon request

Ordering Information

Part number	Description	
Clear Heat Seal, Peelable Film Peelable heat sealing film, optically clear, with 3mm slits for gas transfer; suitable for insect studies, seed storage		
4ti-0540/SLIT	roll (500m x 78mm, approx. 4,200 seals) ¹ ; 1 roll	
4ti-0540/SLIT/S	sample roll (5m x 78mm); 1 sample roll	

Clear Weld Heat Seal



4ti-0575 | Clear Weld Heat Seal | Detail

Optically clear heat sealing film, non-peelable, difficult to pierce; suitable for qPCR, optical applications and storage

Overview

Heat sealing offers a 100% effective method for plate sealing for a complete seal integrity, as well as being quick and cost effective. Our Clear Weld Heat Seal is an optically clear polymer film forming a permanent seal to polypropylene plates. The optical clarity of this seal enables its use for sealing plates required for imaging use, including fluorescent detection methods such as qPCR and colorimetric assays.

The Clear Weld Heat Seal forms a complete seal to a plate, enabling both low and very high temperature uses, including low temperature storage and high temperature incubations. This seal is suitable for PCR/qPCR, even without the use of a pressurized heated lid, and is 100% effective when used in water bath thermal cyclers.

The permanent nature of this 100% effective seal renders it suitable for the storage and disposal of hazardous material. Clear Weld Heat Seal demonstrates a good solvent resistance and can be utilized for long term compound storage. Samples can be accessed by pre-piercing with a blade, needle or our Pierce Plate (4ti-0398).

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer. Also available in multiple roll formats compatible with specified automated heat sealers, such as our Automated Roll Heat Sealer.

Key Features

• Quality & Properties

- Permanent seal
- Difficult to pierce
- o Non-peelable
- Seal integrity range: -80°C to 110°C
- DMSO and solvent resistant
- Autoclavable (121°C)*
- Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen

* Once autoclaved, not recommended for PCR applications.

- Use
 - Applications: suitable for PCR and qPCR, long term storage, and disposal of hazardous materials
 - Seals polypropylene plates
 - Compatible with water bath thermal cyclers
- Options
 - $_{\odot}$ Sheet format: 125 x 78mm, to fit all standard SBS footprint PCR and qPCR plates,
 - microplates, assay and storage plates, from 12 well to 1536 well
 - Roll format: available in a variety of roll dimensions, to suit your choice of automatic heat sealing equipment
 - 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	
Clear Weld Heat Seal Optically clear heat sealing film, non-peelable, difficult to pierce; suitable for qPCR, optical applications and storage		
4ti-0573 BUY ONLINE*	roll (610m x 78mm, approx. 5,000 seals) ¹ ; 1 roll	
4ti-0573/122	roll (122m x 78mm, approx. 1,000 seals) ¹ ; 1 roll	
4ti-0573S	sample roll (5m x 78mm)¹; 1 sample roll	
4ti-0574 BUY ONLINE*	roll (500m x 115mm)²; 1 roll	
4ti-0574S	sample roll (5m x 115mm)²; 1 sample roll	
4ti-0575** BUY ONLINE*	sheets (125 x 78mm); 100 sheets	

Thermal Bond Heat Seal



Heavy duty heat sealing foil, peelable; suitable for long term storage, transportation

Overview

Heat sealing offers a 100% effective method of plate sealing, for complete seal integrity, as well as being quick and cost effective. Our Thermal Bond Heat Seal is a heavy duty laminate foil seal suitable for providing a very strong, but peelable seal. The seal is compatible with polypropylene plates to provide a high degree of sample protection.

It demonstrates very good solvent resistance and can be used for very low temperature compound storage, in DMSO and organic solvents, and long term room temperature storage such that it is recommended as suitable for sample transportation. The seal can be pierced only by using a blade or using the Pierce Plate (4ti-0398).

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer. Also available in multiple roll formats compatible with specified automated heat sealers, such as our Automated Roll Heat Sealer.

Key Features

• Quality & Properties

- \circ Peelable
- Seal integrity range: -200°C to 110°C
- High solvent resistance
- Autoclavable (121°C)
- Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen
- Use
 - Recommended for PCR, including with water bath thermal cyclers
 - Seals polypropylene plates
 - Suitable for long term storage and transportation
 - Suitable for very low temperature storage
- Options
 - Sheet format: 125 x 78mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates, from 12 well to 1536 well
 - Roll format: available in a variety of roll dimensions, to suit your choice of automatic heat sealing equipment
 - Non-sterile as standard; sterilization available upon request

Ordering Information

Part number	Description	
Thermal Bond Heat Seal Heavy duty heat sealing foil, peelable; suitable for long term storage, transportation		
4ti-0590 BUY ONLINE*	roll (500m x 78mm, approx. 4,200 seals) ¹ ; 1 roll	
4ti-0590/100	roll (100m x 78mm, approx. 800 seals) ¹ ; 1 roll	

4ti-0590S	sample roll (5m x 78mm) ¹ ; 1 sample roll
4ti-0592	roll (300m x 115mm, approx. 3,700 seals)²; 1 roll
4ti-0592S	sample roll (5m x 115mm)²; 1 sample roll
4ti-0591 BUY ONLINE*	sheets (125 x 78mm); 100 sheets

Gas Permeable Heat Seal



4ti-0598 | Gas Permeable Heat Seal

Heat sealing membrane, limits evaporation, peelable, pierceable; suitable for cell culture, seed and insect storage

Overview

Heat sealing offers a 100% effective method for plate sealing for a complete seal integrity, as well as being quick and cost effective. Our Gas Permeable Heat Seal is made from a woven material and is designed for use in cell culture, due to its porous nature. The small pore size (<20 μ m) of this material enables gas exchange, per 24 hours of >20g/m², whilst evaporation is reduced to a minimum.

The seal is compatible with polypropylene, polystyrene and cyclic olefin copolymer (COC) plates. It can be removed by peeling, or it can be pierced with a pipette tip manually, using a liquid handling robot or with our Pierce Plate (4ti-0398).

Gas Permeable Heat Seal can be utilized for effective overnight incubations, during which it demonstrates significant reductions in evaporation compared to lids. It can also be used for insect and seed storage as it enables gas exchange, whilst providing an inert surface with no adhesive to interfere with the well contents.

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer. Also available in multiple roll formats compatible with specified automated heat sealers, such as our Automated Roll Heat Sealer.

Key Features

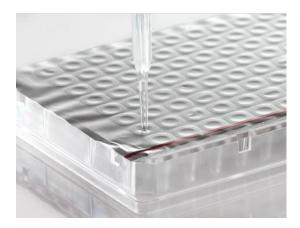
Quality & Properties

- Peelable
- Pierceable
- Seal integrity range: -20°C to 80°C
- Gas permeability rate: 180m³/m²/day
- Moisture vapor transmission rate: 20g/m²/day
- Autoclavable (121°C)
- Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen
- Use
 - Seals polypropylene, polystyrene and cyclic olefin copolymer (COC) plates
 - Suitable for cell culture, overnight incubations, as well as insect and seed storage
- Options
 - Sheet format: 125 x 78mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates, from 12 well to 1536 well
 - Roll format: available in a variety of roll dimensions, to suit your choice of automatic heat sealing equipment
 - Available sterile from stock: sterile variations have /ST added to the end of their product code

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

Part number	Description	
Gas Permeable Heat Seal Heat sealing membrane, limits evaporation, peelable, pierceable; suitable for cell culture, seed and insect storage		
4ti-0598	roll (610m x 78mm, approx. 5,000 seals) ¹ ; 1 roll	
4ti-0598/122	roll (122m x 78mm, approx. 1,000 seals) ¹ ; 1 roll	
4ti-0598S	sample roll (5m x 78mm) ¹ ; 1 sample roll	
4ti-0599	roll (500m x 115mm, approx. 6,200 seals) ² ; 1 roll	
4ti-0599S	sample roll (5m x 115mm)²; 1 sample roll	
4ti-0597	sheets (125 x 78mm); 100 sheets	
4ti-0597/ST	sterile, sheets (125 x 78mm); 10 x 10 sheets	

Foil Heat Seal



4ti-0536 | Foil Heat Seal | Piercing Detail

Aluminum heat sealing foil, resealable, peelable, pierceable; suitable for compound storage, PCR

Overview

Our Foil Heat Seal is compatible with polypropylene and polystyrene plates. This seal demonstrates moderate solvent resistance and can be used for low temperature compound storage in DMSO and organic solvents and short term room temperature storage. The Foil Heat Seal can be pierced with a pipette tip, manually or by liquid handling robots, or it can be removed by peeling. It can be resealed by applying another Foil Heat Seal directly on top of a previously pierced seal.

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer. Also available in multiple roll formats compatible with specified automated heat sealers, such as our Automated Roll Heat Sealer.

A red stripe on the sheet foils clearly indicates the non-sealing surface, for ease of seal orientation and handling.

Key Features

- Quality & Properties
 - o Pierceable
 - Peelable
 - Resealable
 - Seal integrity range: -20°C to 110°C
 - Moderate solvent resistance
 - Autoclavable (121°C)
 - Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen
- Use
 - Seals polypropylene and polystyrene plates
 - Suitable for short term storage
- Options
 - Sheet format: 125 x 78mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates, from 12 well to 1536 well
 - Roll format: available in a variety of roll dimensions, to suit your choice of automatic heat sealing equipment
 - Non-sterile as standard; sterilization available upon request

Ordering Information

Dant women an	Description	
Part number	Description	
Foil Heat Seal Aluminum heat sealing foil, resealable, peelable, pierceable; suitable for compound storage, PCF		
4ti-0535 BUY ONLINE*	roll (610m x 78mm, approx. 5,000 seals) ¹ ; 1 roll	
4ti-0535/122	roll (122m x 78mm, approx. 1,000 seals) ¹ ; 1 roll	
4ti-0535/REMP	roll (610m x 78mm, approx. 5,000 seals) ³ ; 1 roll	
4ti-0535S	sample roll (5m x 78mm)¹; 1 sample roll	
4ti-0537	roll (500m x 115mm, approx. 6,200 seals) ² ; 1 roll	
4ti-0537/REMP	roll (500m x 115mm, approx. 6,200 seals)⁴; 1 roll	
4ti-0537S	sample roll (5m x 115mm)²; 1 sample roll	
4ti-0536 BUY ONLINE*	sheets (125mm x 78mm); 100 sheets	

Polystyrene Foil Heat Seal



4ti-0547 | Polystyrene Foil Heat Seal

Peelable heat sealing foil, seals to polystyrene plates, resealable, pierceable; suitable for compound storage

Overview

Heat sealing offers a 100% effective method of plate sealing, for complete seal integrity, as well as being quick and cost effective. Our Polystyrene Foil Heat Seal produces a stronger seal to

polystyrene plates than our standard Foil Heat Seal. It is compatible with polypropylene, polystyrene and polycarbonate plates.

This seal demonstrates moderate solvent resistance and can be used for low temperature compound storage, in DMSO and organic solvents, and short term room temperature storage. Polystyrene Foil Heat Seal can be pierced with a pipette tip manually, by a liquid handling robot, using our Pierce Plate (4ti-0398), or it can be removed by peeling. It can be resealed by applying another Polystyrene Foil Heat Seal directly on top of a previously pierced seal.

This seal is available as sheets, for use with manual and semi-automated sealers, such as our Semi-Automated Sheet Heat Sealer. Also available in multiple roll formats compatible with specified automated heat sealers, such as our Automated Roll Heat Sealer.

Key Features

• Quality & Properties

- Pierceable
- Peelable
- Resealable foil on foil
- Seal integrity range: -20°C to 110°C
- Free from DNase, RNase, human genomic DNA, and endotoxin/pyrogen
- Use
 - Seals polypropylene, polystyrene and polycarbonate plates
 - Suitable for short term storage
 - Suitable for low temperature compound storage
- Options
 - Sheet format: 125 x 78mm, to fit all standard SBS footprint PCR and qPCR plates, microplates, assay and storage plates, from 12 well to 1536 well
 - Roll format: available in a variety of roll dimensions, to suit your choice of automatic heat sealing equipment
 - Non-sterile as standard; sterilization available upon request

Ordering Information

Part number	Description	
Polystyrene Foil Heat Seal Peelable heat sealing foil, seals to polystyrene plates, resealable, pierceable; suitable for compound storage		
4ti-0545	roll (610m x 78mm, approx. 5,000 seals) ¹ ; 1 roll	
4ti-0545/122	roll (122m x 78mm, approx. 1,000 seals) ¹ ; 1 roll	
4ti-0545S	sample roll (5m x 78mm)¹; 1 sample roll	
4ti-0546	roll (500m x 115mm, approx. 6,200 seals)²; 1 roll	

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