

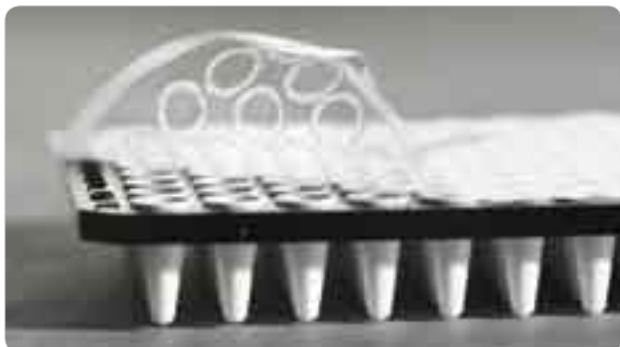
Heat Sealing



4titude® offers a wide range of heat sealing materials in roll and sheet formats. All seals are certified free from nucleases and human genomic DNA contamination and have the following benefits compared to conventional adhesive sealing:

- high degree of reliability for automated sealers.
- no exposed adhesive.
- the underside of the seal is non-tacky at room temperature - reduces the risk of contamination.
- no adhesion of dry samples to the film.
- cost effective - on average 25% cheaper than corresponding adhesives
- wide range - 4titude offers the widest range of heat seals

Clear Seal



Description

Clear polymer film forming a peelable seal to PP, PE, PS and COC plates. Good optical clarity. Moderate solvent resistance.

Seal integrity range

-80°C to 80°C or 120°C with pressurised PCR heated lids.

Application

qPCR, short term compound storage.



Code	Dimensions
4ti-0540	500m x 78mm Roll ¹
4ti-0540S	Trial Roll ¹
4ti-0542	350m x 115mm Roll ²
4ti-0542S	Trial Roll ²
4ti-0541	100 Sheets (125mm x 78mm)

Clear Weld Seal Mark II



Description

Clear polymer film forming a permanent seal to PP that can not be peeled and is difficult to pierce. Good optical clarity and solvent resistance.

Seal integrity range

-80°C to 120°C

Application

PCR, especially water bath thermal cyclers, qPCR. Storage and disposal of hazardous materials. Sample inspection. Recommended for use with DMSO.



Code	Dimensions
4ti-0573	610m x 78mm Roll ¹
4ti-0573S	Trial Roll ¹
4ti-0574	500m x 115mm Roll ²
4ti-0574S	Trial Roll ²
4ti-0575	100 Sheets (125mm x 78mm)

Clear Seal 3730



- **Description**

Clear polymer. Seals to PP, PS, PE and COC. Pierceable. Good optical clarity, some solvent resistance. Not suitable for peeling.

- **Seal integrity range**

-80°C to 80°C or 120°C with pressurised PCR heated lids.

- **Application**

Recommended for use with the ABI 3730 Sequencer as the thinner structure pierces more easily.



Code	Dimensions
4ti-0580	610m x 78mm Roll ¹
4ti-0580S	Trial Roll ¹
4ti-0582	500m x 115mm Roll ²
4ti-0582S	Trial Roll ²
4ti-0581	Roll of 1000 Perforated Sheets

Peel Seal



- **Description**

This popular laminate material gives a peelable heat seal to PP plates. Can be peeled directly from -80°C freezer. Good barrier to aqueous solutions. Moderate resistance to solvents at room temperature.

- **Seal integrity range**

-80°C to 120°C

- **Application**

Low temperature, compound storage, short term room temperature compound storage (less than 5 days), PCR.



Code	Dimensions
4ti-0520	600m x 78mm Roll ¹
4ti-0520S	Trial Roll ¹
4ti-0522	500m x 115mm Roll ²
4ti-0522S	Trial Roll ²
4ti-0521	100 Sheets (125mm x 78mm)

¹Compatible with Thermo Fisher ALPS 300™ / ALPS 3000™ / KBiosystems Chameleon™ / KBioscience FlexiSeal and Remp/Tecan Plate Sealer

²Compatible with Agilent (Velocity 11) PlateLoc®

PP = Polypropylene PS = Polystyrene COC = Cyclic Olefin Copolymer

PE = Polyethylene

NB. Rolls are also available on 150mm core for Remp / Tecan sealers, please enquire

Heat Sealing

DMSO Resistant Peel Seal



- **Description**

Identical sealing characteristics to Peel Seal but with a high resistance to solvents even at elevated temperatures.

- **Seal integrity range**

-80°C to 120°C

- **Application**

Both low temperature and room temperature compound storage with DMSO* and other organic solvents.

* 100% DMSO can be stored at room temperature for 12 months with no deterioration of the seal quality.



Code	Dimensions
4ti-0585	500m x 78mm Roll ¹
4ti-0585S	Trial Roll ¹
4ti-0586	500m x 115mm Roll ²
4ti-0586S	Trial Roll ²
4ti-0587	100 Sheets (125mm x 78mm) supplied on a perforated roll

Pierce Seal



- **Description**

Foil based material. Heat seals to PP plates and can be easily pierced with a tip. Very good solvent resistance including DMSO. Seals can be applied on top of each other allowing multiple access/resealing of samples. Not recommended for peeling. A colour print identifies the non-sealing surface.

- **Seal integrity range**

-80°C to 120°C

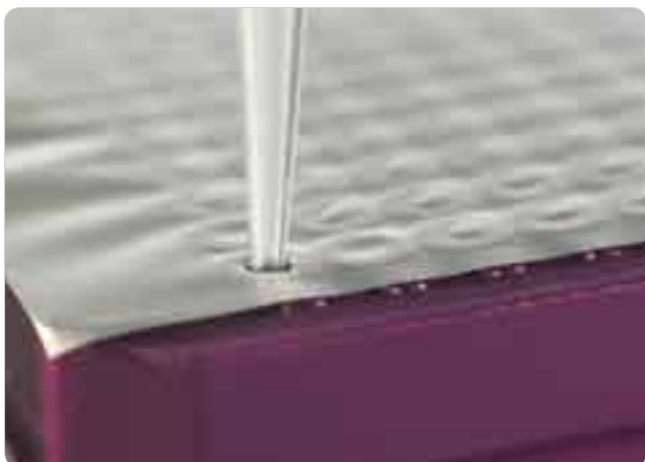
- **Application**

PCR, compound storage, sample shipping.



Code	Dimensions
4ti-0530	610m x 78mm Roll ¹
4ti-0530S	Trial Roll ¹
4ti-0532	500m x 115mm Roll ²
4ti-0532S	Trial Roll ²
4ti-0531	100 Sheets (125mm x 78mm)

Pierce Seal Strong



- **Description**

Foil based material. Heat seals to PP plates. Forms a weld seal that cannot be peeled but is easily pierced with a tip. Good solvent resistance.

- **Seal integrity range**

-20°C to 120°C

- **Application**

Permanent seal makes this material ideal for high temperature and high pressure applications such as water bath thermal cycling in all low pressure environments such as shipping by air.



Code	Dimensions
4ti-0533	610m x 78mm Roll ¹
4ti-0533S	Trial Roll ¹
4ti-0533B	500m x 115mm Roll ²
4ti-0533BS	Trial Roll ²

Foil Seal



- **Description**

Heat seal to PP and PS plates that can be pierced with a tip or peeled off by hand. Good solvent resistance including DMSO. Resealing onto existing seal is possible. A colour print identifies the non-sealing surface.

- **Seal integrity range**

-80°C to 120°C

- **Application**

Low temperature compound storage, short term room temperature compound storage, PCR.



Code	Dimensions
4ti-0535	610m x 78mm Roll ¹
4ti-0535S	Trial Roll ¹
4ti-0537	500m x 115mm Roll ²
4ti-0537S	Trial Roll ²
4ti-0536	100 sheets (125mm x 78mm)

¹ Compatible with Thermo Fisher ALPS 300™ / ALPS 3000™ / KBiosystems Chameleon™ / KBioscience FlexiSeal and Remp/Tecan Plate Sealer

² Compatible with Agilent (Velocity 11) PlateLoc®

PP = Polypropylene PS = Polystyrene COC = Cyclic Olefin Copolymer

PE = Polyethylene

NB. Rolls are also available on 150mm core for Remp / Tecan sealers, please enquire

Heat Sealing

Thermal Bond



- Description**
 Heavy duty laminate material that seals to PP to give a very strong peelable seal. High degree of sample protection. Good solvent resistance including DMSO.
- Seal integrity range**
 -20°C to 120°C
- Application**
 Long term storage including storage and transportation at low temperature. PCR, especially water bath cyclers. Storage of organic solvents, acids and alkalines.



Code	Dimensions
4ti-0590	500m x 78mm Roll ¹
4ti-0590S	Trial Roll ¹
4ti-0591	100 sheets (125mm x 78mm)
4ti-0592	300m x 115 mm Roll ²

Black Seal



- Description**
 A foil based heat seal, coated on the sealing surface with a low fluorescence black pigment. Forms a peelable seal to PS plates.
- Seal integrity range**
 -80°C to 120°C
- Application**
 Fluorescent and other light sensitive assays.

NEW



Code	Dimensions
4ti-0525	610m x 78mm Roll ¹
4ti-0526	500m x 115mm Roll ²
4ti-0527	100 sheets (125mm x 78mm)

Gas Permeable Heat Seal



- Description**
 A woven heat seal that is permeable to gasses but providing a barrier to solid contaminants. Permeability rate >4000g/sqm/24h. Pore size up to 35 Microns. Seals to PP and PS plates.
- Seal integrity range**
 -20°C to 120°C
- Application**
 Cell culture, over night incubation, seed and insect storage.

NEW



Code	Dimensions
4ti-0596	200m x 78mm Roll ¹
4ti-0595	100 sheets (125mm x 78mm)

¹Compatible with Thermo Fisher ALPS 300™ / ALPS 3000™ / KBiosystems Chameleon™ / KBioscience FlexiSeal and Remp/Tecan Plate Sealer
²Compatible with Agilent (Velocity 11) PlateLoc®
 PP = Polypropylene PS = Polystyrene
 COC = Cyclic Olefin Copolymer PE = Polyethylene
 NB. Rolls are also available on 150mm core for Remp / Tecan sealers, please enquire