

# How to Use MicroAmp™ Reaction Plates, Tube Strips, and Tubes

For use with: Applied Biosystems™ thermal cyclers and real-time PCR systems

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## How to use MicroAmp™ plates

### MicroAmp™ plates and accessories

This table is representative of available plastics and other consumables. To find a complete list, or to search using our online PCR/qPCR plastic selection guide, visit [thermofisher.com/plastics](http://thermofisher.com/plastics).

Item	Cat. No. (Quantity)
MicroAmp™ EnduraPlate™ Optical 96-Well Reaction Plates with Barcode	<ul style="list-style-type: none"> <li>• 4483354 (20 plates; clear)</li> <li>• 4483343 (20 plates; blue)</li> <li>• 4483349 (20 plates; green)</li> <li>• 4483350 (20 plates; red)</li> <li>• 4483395 (20 plates; yellow)</li> <li>• 4483355 (5 plates; assorted colors)</li> <li>• 4483352 (500 plates; clear)</li> <li>• 4483356 (500 plates; assorted colors)</li> </ul>
MicroAmp™ Optical 96-Well Reaction Plate with Barcode	<ul style="list-style-type: none"> <li>• 4306737 (20 plates)</li> <li>• 4326659 (500 plates)</li> </ul>
MicroAmp™ Optical 96-Well Reaction Plate with Barcode and Optical Adhesive Films	4314320 (100 plates)
MicroAmp™ Optical 96-Well Reaction Plate	<ul style="list-style-type: none"> <li>• 4316813 (500 plates)</li> <li>• N8010560 (10 plates)</li> </ul>
MicroAmp™ Optical 8-Cap Strips	4323032 (300 strips)

Item	Cat. No. (Quantity)
MicroAmp™ 12-Cap Strip	<ul style="list-style-type: none"> <li>• N8010534 (200 strips)</li> <li>• N8011534 (1,000 strips)</li> </ul>
MicroAmp™ 8-Cap Strip, clear	N8010535 (300 strips)
MicroAmp™ 8-Cap Strip, assorted colors	N8010835 (300 strips of assorted colors)
MicroAmp™ 12-Cap Strip, assorted colors	N8010834 (200 strips of assorted colors)
MicroAmp™ Clear Adhesive Film	4306311 (100 films)
MicroAmp™ Optical Adhesive Film	<ul style="list-style-type: none"> <li>• 4311971 (100 films)</li> <li>• 4360954 (25 films)</li> </ul>
MicroAmp™ Splash Free 96-Well Base	4312063 (10 bases)
MicroAmp™ Adhesive Film Applicator	4333183 (5 applicators)
MicroAmp™ Cap Installing Tool (Handle)	4330015 (1 tool)

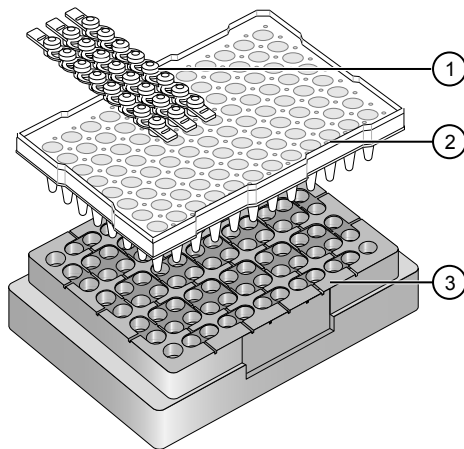
## Fill, seal, and load reaction plates

The following procedure describes how to properly load and seal MicroAmp™ reaction plates using cap strips or adhesive seals. For a visual demonstration, watch the video "How to seal a PCR plate" by visiting **PCR/qPCR Plastics and Seals Education**.

1. Place the reaction plate on a splash-free 96-well base.
2. Pipette the samples into the sample wells.
3. Seal the plates using one of the following:
  - MicroAmp™ Cap Strips.
  - MicroAmp™ Adhesive Film.
4. Place the sealed reaction plate into the instrument without the splash-free base.

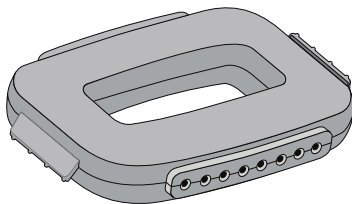
## Seal plates with cap strips

1. Align and place the MicroAmp™ Cap Strip on the appropriate wells on the MicroAmp™ Optical 96-Well Reaction Plate.



- ① MicroAmp™ 8-Cap Strip
- ② MicroAmp™ Optical 96-Well Reaction Plate 0.2-mL
- ③ MicroAmp™ Splash Free 96-Well Base

2. Seal the cap strips using the rocking capping tool:



- a. Slip your fingers through the handle with the holes in the tool facing down for domed caps and with the holes facing up for optical caps.
- b. Align the tool over the first eight caps in a row.
- c. Rock the tool back and forth a few times to seal the caps.
- d. Repeat for all remaining rows.

## Seal plates with adhesive covers

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**IMPORTANT!** Apply significant downward pressure on the applicator in all steps to form a complete seal on top of the wells. Pressure is required to activate the adhesive on the optical cover.

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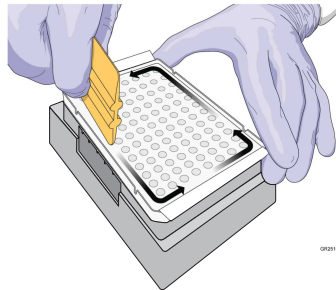
1. Remove the backing of the adhesive film.
2. Align the adhesive film so as to cover all wells while placing on the plate, then rub the flat edge of the applicator back and forth along the long edge of the plate.



3. Rub the flat edge of the applicator back and forth along the short edge (width) of the plate.



4. Rub the end of the applicator horizontally and vertically between all wells.
5. Rub the end of the applicator around all outside edges of the plate using small back and forth motions to form a complete seal around the outside wells.



## How to use MicroAmp™ tube strips and cap strips

### MicroAmp™ tube strips and accessories

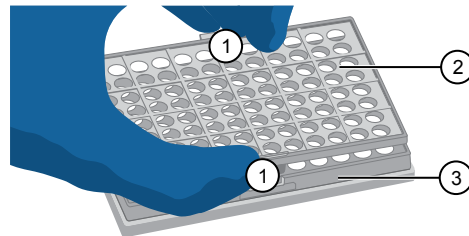
This table is representative of available plastics and other consumables. To find a complete list, or to search using our online PCR/qPCR plastic selection guide, visit [thermofisher.com/plastics](http://thermofisher.com/plastics).

Consumables	Cat. No. (Quantity)
MicroAmp™ 8-Tube Strip (0.2 mL)	<ul style="list-style-type: none"><li>N8010580 (125 tube strips)</li><li>N8010838 (120 tube strips; assorted colors)</li></ul>
MicroAmp™ Fast 8-Tube Strip (0.1 mL)	4358293 (125 strips)
MicroAmp™ 96-Well Tray/ Retainer Set - Blue color	4381850 (10 tray/retainer sets)
MicroAmp™ 8-Cap Strip Natural color, dome cap.	N8010535 (300 strips)
MicroAmp™ 8-Cap Strip, assorted colors Assorted color, dome cap.	N8010835 (300 strips)
MicroAmp™ Optical 8-Cap Strip	4323032 (300 strips)
MicroAmp™ Splash Free 96-Well Base	4312063 (10 bases)
MicroAmp™ Cap Installing Tool (Handle)	4330015 (1 tool)

### Prepare samples using MicroAmp™ tubes/tube strips with separate cap strips

The following procedure describes how to properly load and seal MicroAmp tube strips using cap strips and the MicroAmp 96-well tray/retainer set. For a visual demonstration, watch the video "How to use adapter tray retainers" by visiting [PCR/qPCR Plastics and Seals Education](#).

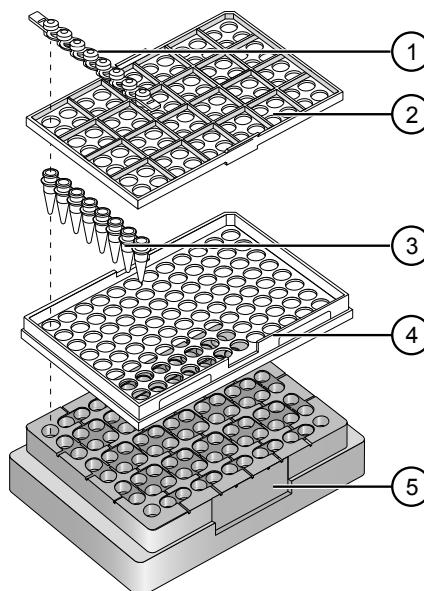
1. Separate the **blue** tray and retainer by squeezing the release catch as indicated in the graphic.



- ① Release catch
- ② MicroAmp™ 96-Well Retainer
- ③ MicroAmp™ 96-Well Tray

2. Place the **blue** tray on the 96-well base.
3. Load the tube strips on the tray.

4. Pipette the reaction mixture into the tubes.
5. Place the **blue** retainer over the tubes and snap the retainer into the tray.
6. Seal the tube strip using a MicroAmp™ cap strip. See “Seal tube strips with cap strips” on page 6 for instructions.
7. Remove the **blue** tray/retainer assembly containing the sealed tube strips from the 96-well base and place the assembly into the instrument.



- ① MicroAmp™ 8-Cap strip
- ② MicroAmp™ 96-Well Retainer
- ③ MicroAmp™ 8-Tube Strip (0.2-mL) or MicroAmp™ Reaction Tube without Cap (0.2-mL)
- ④ MicroAmp™ 96-Well Tray
- ⑤ MicroAmp™ Splash Free 96-Well Base

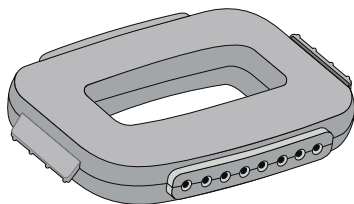
## Seal tube strips with cap strips

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**IMPORTANT!** Apply significant downward pressure on the sealing tool in all steps to form a complete seal on top of the tubes.

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1. Align and place the cap strips on the tubes.
2. Seal the cap strips using the rocking capping tool:



- a. Slip your fingers through the handle with the holes in the tool facing down for domed caps and with holes facing up for optical caps.

- b. Align the tool over the first eight caps in a row.
- c. Rock the tool back and forth a few times to seal the caps.
- d. Repeat for all remaining rows.

## How to use MicroAmp™ tube strips with attached caps

### MicroAmp™ tubes and accessories

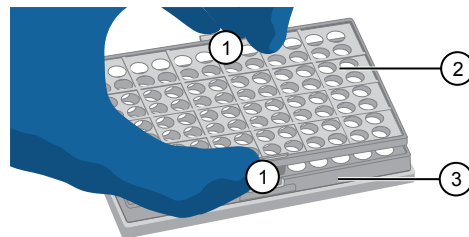
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Consumables	Cat. No. (Quantity)
MicroAmp™ 8-Tube Strip with Attached Domed Caps (0.2 mL)	A30589 (125 strips)
MicroAmp™ Optical 8-Tube Strip with Attached Optical Caps (0.2 mL)	A30588 (125 strips)
MicroAmp™ 96-Well Tray / Retainer Set- Blue color	4381850 (10 trays/retainer sets)
MicroAmp™ Splash Free 96-Well Base	4312063 (10 bases)
MicroAmp™ Cap Installing Tool (Handle)	4330015 (1 tool)

### Prepare samples using MicroAmp™ tube strips with attached caps

The following procedure describes how to properly load and seal MicroAmp tube strips with attached caps using the MicroAmp 96-well tray/retainer set. For a visual demonstration, watch the video "How to use adapter tray retainers" by visiting [PCR/qPCR Plastics and Seals Education](#).

1. Separate the **blue** tray from the retainer by squeezing the release catch as indicated in the graphic.



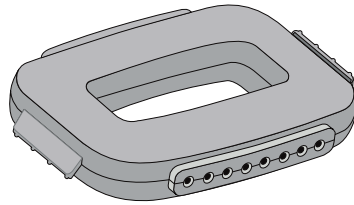
- ① Release catch
- ② MicroAmp™ 96-Well Retainer
- ③ MicroAmp™ 96-Well Tray

2. Place the **blue** tray on the splash-free 96-well base.

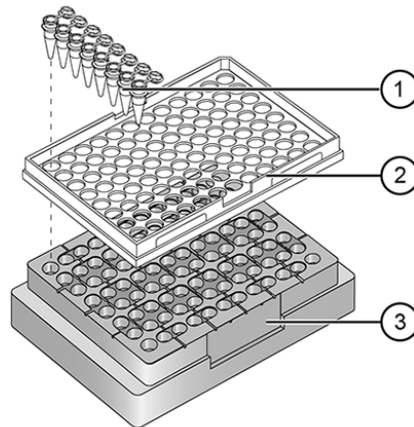
**Note:** Only the bottom tray is used for tubes with attached caps.

3. Load the tube strips with attached caps into the tray.
4. Pipette the reaction mixture into the tubes.

5. Seal the cap strips using the rocking capping tool:



- a. Slip your fingers through the handle with the holes in the tool facing down for domed caps and with the holes facing up for optical caps.
  - b. Align the tool over the first eight caps in a row.
  - c. Rock the tool back and forth a few times to seal the caps.
  - d. Repeat for all remaining rows.
6. Remove the **blue** tray containing the sealed tube strips from the 96-well base and place the tray and sealed tube strips into the instrument.



- ① MicroAmp™ 8-Tube Strip with Attached Caps (0.2-mL)
- ② MicroAmp™ 96-Well Tray
- ③ MicroAmp™ Splash Free 96-Well Base



## How to use MicroAmp™ individual tubes

### MicroAmp™ tubes and accessories

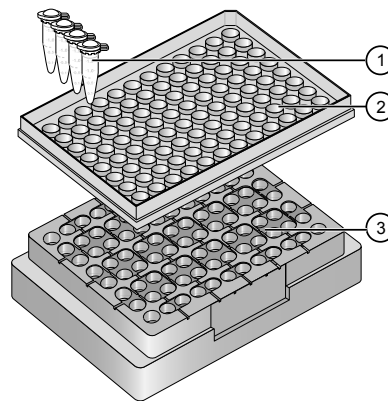
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Consumables	Cat. No. (Quantity)
MicroAmp™ 96-Well Tray for VeriFlex™ Systems - black color	4379983 (10 trays)
MicroAmp™ Reaction Tubes with Cap (0.2 mL)	<ul style="list-style-type: none"><li>• N8010540 (1,000 tubes)</li><li>• N8011540 (10,000 tubes)</li><li>• N8010840 (1,000 tubes; assorted colors)</li><li>• N8010612 (1,000 tubes; autoclaved)</li></ul>
MicroAmp™ Fast Reaction Tube with Cap (0.1 mL)	4358297 (1000 tubes)
MicroAmp™ Multi-Removal Tool	4313950 (1 tool)
MicroAmp™ Splash Free 96-Well Base	4312063 (10 bases)

### Prepare samples using MicroAmp™ Reaction Tubes

The following procedure describes how to properly load and seal MicroAmp™ individual tubes with attached caps and the MicroAmp™ 96-well tray for VeriFlex systems. For a visual demonstration, watch the video "How to use adapter tray retainers" by visiting [PCR/qPCR Plastics and Seals Education](#).

1. Set the **black** tray on a 96-well base.
2. Place the reaction tubes in the **black** tray.



- ① MicroAmp™ Reaction Tube with Cap (0.2-mL)
- ② MicroAmp™ 96-Well Tray for VeriFlex™ Blocks
- ③ MicroAmp™ Splash Free 96-Well Base

3. Pipette the reaction mixture into the reaction tubes.

4. Cap the tubes.
5. Remove the **black** tray with sealed reaction tubes from the 96-well base and place the tray and sealed tubes into the instrument.

## Limited product warranty

Life Technologies Corporation and/or its affiliate(s) warrant their products as set forth in the Life Technologies' General Terms and Conditions of Sale at [www.thermofisher.com/us/en/home/global/terms-and-conditions.html](http://www.thermofisher.com/us/en/home/global/terms-and-conditions.html). If you have any questions, please contact Life Technologies at [www.thermofisher.com/support](http://www.thermofisher.com/support).

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