

# Microseal® 'M' Sealing Mats for Microplates

Microseal 'M' sealing mats are a convenient and economical option for sealing 96-well polypropylene microplates during oil-free thermal cycling. Place the rubber mat over the microplate and compress with a heated lid capable of applying pressure. An array of 96 bumps orients the mat on the microplate and prevents it from sticking to the lid. Microseal 'M' mats may be reused up to 50 times under normal use. Minimum recommended thermal-cycling reaction volume is 10 $\mu$ l.

## Tips for use:

- Before using, autoclave the mat or wash it with a mild bleach solution. UV treatment is not recommended.
- Either side may be oriented over wells.
- When using with MJ Research® thermal cyclers that have adjustable heated lids, turn the thumbwheel until the lid contacts the plate (an increase in resistance will be felt). Then continue to turn the thumbwheel about 3/4 turn past the point of first contact (1/4 of the thumbwheel circumference is visible, so three passes of the visible portion equals 3/4 turn). With non-adjustable PTC-100® lids, use an appropriate adapter plate, as indicated below.

## Microseal 'M' Sealing Mats

MSM-1001 10 mats per package

## Related products

ADR-0103	3mm Adapter Plate	Use when sealing MLP-series plates in a PTC-100 cycler with a non-adjustable lid, or when using MSS-series plates in any cycler.
ADR-0110	10mm Adapter Plate	Use when sealing MLL- or MSP-series plates in a PTC-100 cycler with a non-adjustable lid.

## Microseal 'M' Mats effectively seal these vessels (96-well format only):

Product	Thermal Cycling Reaction Volumes	Product Highlights
Multiplate™ Unskirted Microplates MLP-series	5–125 $\mu$ l	<ul style="list-style-type: none"> <li>• Versatile, high-performance, and inexpensive</li> <li>• Full-height vessels can easily be cut to desired size when running fewer than 96 samples</li> <li>• Available in 96-, 48-, 25-, and 24-well formats</li> </ul>
Low-Profile Multiplate Unskirted Microplates MLL-series	5–125 $\mu$ l	<ul style="list-style-type: none"> <li>• More rigid design, yet easily cut to desired size when running fewer than 96 samples</li> <li>• Low profile reduces potential for condensate formation</li> <li>• Available in 96- and 48-well formats</li> </ul>
Microseal Semi-Skirted 96-Well Microplates MSS-series	5–125 $\mu$ l	<ul style="list-style-type: none"> <li>• Semi-skirt design adds stiffness and extra labeling surface</li> <li>• Compatible with instruments limited to full-height vessels (e.g. ABI cyclers and sequencers)</li> </ul>
Microseal Skirted 96-Well Microplates MSP-series	5–125 $\mu$ l	<ul style="list-style-type: none"> <li>• High throughput, robot-friendly design in one-component, thin-wall polypropylene</li> <li>• 96-well format is compatible with DNA Engine Opticon® Continuous Fluorescence Detection Systems</li> </ul>

## Sealer Comparison Chart

Product	Product Highlights	Compatibility
Microseal 'M' Mats MSM-1001 (10 mats)	<ul style="list-style-type: none"> <li>• Reusable mat – ideal for sequencing</li> <li>• Smooth release – no aerosol generation</li> <li>• Thermal cycling reactions <math>\geq 10\mu\text{l}</math></li> </ul>	96-well polypropylene microplates
Microseal 'A' Film MSA-5001 (50 sheets)	<ul style="list-style-type: none"> <li>• Smooth application and release – no aerosol generation</li> <li>• Peel-away release liner for pristine sealing surface</li> <li>• Thermal cycling reactions <math>\geq 10\mu\text{l}</math> (96-well) or <math>\geq 5\mu\text{l}</math> (384-well)</li> </ul>	All microplates, tube strips
Microseal 'B' Adhesive Seals MSB-1001 (100 sheets)	<ul style="list-style-type: none"> <li>• Clear, adhesive seal for thermal cycling or fluorescent assays</li> <li>• Plate storage or transport before or after cycling (ambient to <math>-40^{\circ}\text{C}</math>)</li> <li>• Thermal-cycling reactions <math>\geq 10\mu\text{l}</math> (96-well) or <math>\geq 5\mu\text{l}</math> (384-well)</li> </ul>	All polypropylene microplates
Microseal 'F' Foil MSF-1001 (100 sheets)	<ul style="list-style-type: none"> <li>• Pierceable foil for sample recovery</li> <li>• Plate storage (ambient to <math>-70^{\circ}\text{C}</math>)</li> <li>• Thermal-cycling reactions <math>\geq 25\mu\text{l}</math> (96-well) or <math>\geq 5\mu\text{l}</math> (384-well)</li> </ul>	All microplates
Microseal 'P+' Pads MSP-1002 (10 pads)	<ul style="list-style-type: none"> <li>• Reusable sealing pad adheres to the heated lid</li> <li>• For new MJ Research<sup>®</sup> Moto Alpha<sup>™</sup> motorized lid (ALP-2296, ALP-2238)</li> <li>• Thermal-cycling reactions <math>\geq 10\mu\text{l}</math> (96-well) or <math>\geq 5\mu\text{l}</math> (384-well)*</li> </ul>	All 384-well and 96-well microplates with raised well rims
Microseal 'P' Pads MSP-1001 (10 pads)	<ul style="list-style-type: none"> <li>• Reusable sealing pad adheres to the heated lid</li> <li>• For MJ Research Power Bonnet<sup>™</sup> motorized lid (ALP-1296, ALP-1238)</li> <li>• Thermal-cycling reactions <math>\geq 15\mu\text{l}</math> (96-well) or <math>\geq 10\mu\text{l}</math> (384-well)</li> </ul>	All 384-well and 96-well microplates with raised well rims
Strip Caps TCS-series	<ul style="list-style-type: none"> <li>• Tight sealing for thermal cycling, storage, or transport</li> <li>• Choice of dome caps or ultra-clear, flat optical caps</li> <li>• Thermal cycling reactions <math>\geq 5\mu\text{l}</math></li> </ul>	96-well polypropylene microplates and 0.2ml tubes
Chill-out <sup>™</sup> Liquid Wax red color or clear CHO-series	<ul style="list-style-type: none"> <li>• Replaces mineral oil overlay – solidifies below <math>10^{\circ}\text{C}</math> for easy sample recovery</li> <li>• Protects samples from spills or aerosol formation during chilled transport</li> <li>• Clear Chill-out overlay is ideal for reading fluorescent assays</li> <li>• Thermal-cycling reactions <math>\geq 2\mu\text{l}</math></li> </ul>	All tubes, 96-well microplates, Hard-Shell <sup>®</sup> 384-well microplates

\* Reliable cycling of substantially smaller volumes has been demonstrated with 384-well Hard-Shell<sup>®</sup> plates using high-pressure motorized lids; please inquire for more information.

