

Optically Clear Heat Seal

Catalog #181-4030

The optically clear heat seal provides a secure sealing option for thermal cycling applications. The effective light transmission and low-level autofluorescence of these seals are ideal for optical assays, such as those performed in real-time PCR. The seal is peelable for subsequent sample retrieval and is also nonpierceable.

Features

- Forms a peelable seal with polypropylene, polyethylene,* polystyrene, and cyclic olefin copolymer materials
- Has seal integrity from –80 to 110°C with pressurized heated PCR lid
- Demonstrates moderate solvent resistance
- Can be stored at room temperature; avoid direct exposure to light
- Certified RNase and DNase free

Directions for Use

Note: Optimize sealing parameters in an empty plate prior to completing experimental workflows.

1. Place a microplate in the plate support block and position it correctly on the open PX1™ PCR plate sealer drawer.
2. Carefully remove a seal from the bag, discard white paper, and place the seal on the plate so that the **glossy side faces up**.

Note: It is not necessary to use the sealing frame with this seal.

3. Seal the plate. For suggested sealing parameters, refer to Sealing Guidelines for Optically Clear Heat Seal.

* Limited and variable compatibility based on plastic composition.



Sealing Guidelines for Optically Clear Heat Seal

Product	Catalog Number	Number of Wells	Well Color	Temperature, °C	Time, sec
Hard-Shell® 384-well standard PCR plates	HSP-3xxx	384	Clear	175	3
			White	167	3
Hard-Shell 384-well 480 PCR plates	HSR-4xxx	384	Clear	175	3
			White	167	3
Hard-Shell low-profile 96-well skirted PCR plates	HSP-9xxx	96	Clear	185	3
			White	180	3
Hard-Shell high-profile 96-well semi-skirted PCR plates	HSS-9xxx	96	Clear	170	3
			White	185	3
Multiplate™ low-profile 96-well unskirted PCR plates	MLL-9xxx	96	Clear	180	3
			White	180	3
Multiplate high-profile 96-well unskirted PCR plates	MLP-9xxx	96	Clear	175	3
			White	170	3
iQ™ 96-well PCR plates	223-9441	96	Clear	180	3

Heat Sealing Film Comparison Chart

Product	Catalog Number	Key Features	Compatibility
Optically clear heat seal	181-4030	<ul style="list-style-type: none"> Validated for real-time PCR Peelable 	PP, COC, PE,* PS
Permanent clear heat seal	181-4035	<ul style="list-style-type: none"> Strongest heat sealing option Ideal for water bath cycling Validated for PCR** 	PP
Pierceable foil heat seal	181-4040	<ul style="list-style-type: none"> Validated for use with the QX100™ Droplet Digital™ PCR system Validated for PCR 	PP, PS*
Peelable foil heat seal	181-4045	<ul style="list-style-type: none"> Ideal for sample storage Validated for PCR 	PP, COC*

* Limited and variable compatibility based on plastic composition. ** Not recommended for real-time PCR. COC, cyclic olefin copolymer; PE, polyethylene; PP, polypropylene; PS, polystyrene.

Practice of the polymerase chain reaction (PCR) may require a license.

Hard-Shell plates are covered by one or more of the following U.S. patents or their foreign counterparts owned by Eppendorf AG: U.S. Patent Numbers 7,347,977; 6,340,589; and 6,528,302.



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