

Permanent Clear Heat Seal

Catalog #181-4035

The permanent clear heat seal provides the strongest heat sealing option and is ideal for sensitive sealing applications, such as water bath cycling. This seal is not recommended for real-time PCR. The seal is nonpeelable and nonpierceable.

Features

- Forms a permanent seal with polypropylene materials
- Has seal integrity from –80 to 110°C with pressurized heated PCR lid
- Demonstrates high solvent resistance
- Is nonhazardous
- 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 inspect the orientation of the seals inside the bag. Once seals are removed from the packaging, the sealing surface cannot be distinguished from the nonsealing surface.
3. Remove a seal and place the sealing side down against the plate, as described on the bag.
4. **Gently place the sealing frame on top of the seal** and align the vertical supports in the grooves on the drawer.
5. Seal the plate. For suggested sealing parameters, refer to Sealing Guidelines for Permanent Clear Heat Seal.

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Sealing Guidelines for Permanent 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 White	175 167	3 3
Hard-Shell 384-well 480 PCR plates	HSR-4xxx	384	Clear White	175 167	3 3
Hard-Shell low-profile 96-well skirted PCR plates	HSP-9xxx	96	Clear White	180 180	3 3
Hard-Shell high-profile 96-well semi-skirted PCR plates	HSS-9xxx	96	Clear White	165 180	3 3
Multiplate™ low-profile 96-well unskirted PCR plates	MLL-9xxx	96	Clear White	180 160	3 3
Multiplate high-profile 96-well unskirted PCR plates	MLP-9xxx	96	Clear White	150 165	3 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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