



PLATELOC[®] THERMAL PLATE SEALER



Microplate Thermal Seal Selection Guide: ALUMINIUM & CLEAR SEALS

Suitability/compatibility of any seal material should be evaluated/confirmed for each specific application. This information is for reference only.

● = YES (dot)

Specifications subject to change.

	Peelable Aluminum	Pierceable Aluminum	Clear Peelable Seal	Clear Pierceable Thin Seal
Product Number	06643.001	06644.001	16985.001	17318.001
ADHESION (The number of times a resealable plate can be resealed is a function of the plate material and the time and temperature)				
Peelable	●		●	●
Permanent		●		
Resealable	● (Application Dependent)		●	●
APPLICATIONS (Typical)				
Compound Storage	●		Short Term	Short Term
DNA Sequencing				●
PCR/qPCR/rtPCR	●		●	
Screening	●	●		●
SPA Radioactive / Top Count Assays			●	●
Thermal/ Water Bath Cycling	Limited	Limited	●	●
CHEMICAL COMPATIBILITY GUIDELINES (Assumes microplate sealing surface/chimney is clean. *Chemical solutions which produce explosive vapor mixtures, such as those which may be generated by solvents, alcohols, etc. are incompatible with thermal plate sealing.)				
Alcohols*	●	●	●	●
Aqueous Solutions	●	●	●	●
Organic Solvents:*			● (Daily/Short Term–Not for Long Term Storage)	● (Daily/Short Term–Not for Long Term Storage)
DMSO	●	●		
DIMENSIONS				
Core Diameter	76.2 mm (3") ID	76.2 mm (3") ID	76.2 mm (3") ID	76.2 mm (3") ID
Length of Roll	457.2 m (1500 ft)	500 m (1640 ft)	200 m (656 ft)	370 m (1213 ft)
Length Used per Plate	78 mm (3.07")	78 mm (3.07")	78 mm (3.07 in)	78 mm (3.07 in)
Plates/Roll (Min)	5000	5000	2000	4700
Roll Diameter	241.3 mm (9.5")	241.3 mm (9.5")	203.2 mm (8")	203.2 mm (8")
Thickness	.0762 mm (.003")	.025 mm (.00098")	.125 mm (0.005 in)	.0762 mm (0.003 in)
Width	115 mm (4.53")	115 mm (4.53")	115 mm (4.53 in)	115 mm (4.53 in)
MICROPLATE COMPATIBILITY, PLATELOC SEALING CONDITIONS/GUIDELINES (Tips: Quality microplates with raised chimneys with flat surfaces can help minimize cross contamination, reduce evaporation and minimize condensation. Conditions below are starting point recommendations for microplate optimization—plate design can play a significant role in the ideal seal conditions. Microplates of the same material may require different settings, based on thickness/geometry, etc. Optimize time and temperature parameters for each plate type before use. Use the lowest temperature and shortest time period possible for best results. If warped microplates or plates which do not lie flat are a challenge, try Velocity11's <i>PlateLoc Flexible Inserts</i> Product Number 15818.002, if you experience non-uniformity in seal quality.)				
Non-binding				
Polycarbonate			NA / TBD	NA / TBD
Polyethylene	170°C; 1.2 sec	Best Results with Polypropylene 170°C; 1.2 sec	NA / TBD	NA / TBD
Polypropylene			130°C-150°C; 1-1.7 sec	130°C-160°C; 1-1.7 sec
Polystyrene			NA / TBD	NA / TBD
OPTICAL PROPERTIES				
Autofluorescence	N/A	N/A		
Optically Clear (Plate Reader Compatible)			● Ideal 300 nm and above (0.3A @330 nm)	● Ideal 300 nm and above (0.3A @330 nm)
Transparent, Visually			●	●
PHYSICAL PROPERTIES (*Gas permeability is relative and dependent on time, temperature, application, etc. Each seal should be evaluated for its suitability for the application.)				
Adhesion	Thermal	Thermal	Thermal	Thermal
Appearance	White top, reflective bottom	Reflective top and bottom	Opaque unsealed, transparent sealed	Opaque unsealed, transparent sealed
Cross Contamination/ Leakage Resistant	●	●	●	●
Evaporation Resistant	●	●	●	●
Material	Multilayer Aluminum Foil / Polymer Laminate	Aluminum Foil w/Thermal Sealant Layer	Multilayer Polymer Laminate	Multilayer Polymer Laminate
Permeable, Gas*				
Permeable, Moisture*				
Permeable, Oxygen*				
PIERCEABILITY (Note: 06644.001 is not recommended for multiple pierce/reseal/pierce cycles--there is a risk of aluminum fragments falling into samples.)				
Pierceable, Metal Probe	●	●		● (Some e.g. ABI 3730)
Pierceable, Plastic Pipette		●		
Pierceable w/VPrep®, Bravo™, PlatePierce™		Recommended only with the PlatePierce		Recommended only with the PlatePierce
STORAGE INFORMATION				
Conditions	Store out of direct sunlight, 5°C to 30°C (41°C to 86°F)	Store out of direct sunlight, 5°C to 30°C (41°C to 86°F)	Store out of direct sunlight, 5°C to 30°C (41°C to 86°F)	Store out of direct sunlight, 5°C to 30°C (41°C to 86°F)
Shelf Life	18 months	18 months	18 months	18 months
THERMAL PROPERTIES (Allow microplates which have been stored at low temperature to reach room temperature before attempting to remove/peel seal)				
Seal Integrity Range	-80°C to 105°C	-20°C to 80°C	-20°C to 120°C	-20°C to 120°C