

Specification Sheet

Thermo-Sealing

Principle of Heat Sealing

The sealing material is first placed in position over the plate. Heat is applied evenly for several seconds, resulting in welding of the sealing material and the plate. This achieves a complete seal without the need for adhesives, which can interfere with the sample.

Advantages

Heat sealing is a proven technology that offers a number of advantages over other plate sealing methods:

- 100% sealing integrity
- Ideal for PCR and storage applications
- Exceptional seal integrity at low temperatures
- No adhesives which could interfere with the sample
- Greater resistance to solvents such as DMSO
- Peelable and pierceable seals
- Quicker and more cost-effective than other sealing methods

Sample Temperature

Due to the rapid nature of heat sealing, the temperature of samples within the wells does not rise significantly during sealing. Therefore, even temperature sensitive samples, such as enzymatic reactions, are not affected during the sealing step.

REMP Thermo-Seal

REMP has developed a range of Thermo-Seal materials for different applications. The Thermo-Seal range is:

Pierceable Thermo-Seal	aluminum foil	silver
Removable Thermo-Seal	aluminum foil	blue
Extra-Durable Removable Thermo-Seal	aluminum foil	red
Removable Thermo-Seal for PS-Plates	aluminum foil	dark grey
Clear Thermo-Seal	dual layered laminate	transparent

Analytical testing by GC-MS after DMSO extraction confirmed no detectable leachables from the REMP aluminium Thermo-Seals.

If you need further information regarding the REMP Thermo-Seal or the REMP Heat Sealers, please contact REMP.



| Thermo-Sealing

	Piercable Thermo-Seal	Removable Thermo-Seal	Extra-Durable Removable Thermo-Seal	Removable Thermo-Seal for PS-Plates	Clear Thermo-Seal
Thermo-Seal roll use with LHS/SHS Order no.	30021859	30021860	30021861	30021867	30021811
Thermo-Seal roll use with PHS Order no.	30021864	30021865	30021866	30021862	30021810
Thermo-Seal roll use with Velocity11 PlateLoc, Order no.	30021868	30021876	30021877	30021878	30021879
Thermo-Seal roll use with ABgene ALPS 300, Order no.	30021880	30021881	30021882	30021883	30021884
Single sheet, Order no.	30021837	30021838	30021839	30021843	30021840
Description	25µm aluminum foil	25µm aluminum foil	38µm aluminum foil	38µm aluminum foil	dual layered laminate
Color	silver	blue	red	dark grey	transparent
Content of plate exposed to	PP	PE	PE	–	–
Recommended plate material	PP	PP	PP	PP, PS	PP, PS
Typical sealing conditions	2.5 – 3.5 seconds 165°C – 178°C	2.5 – 3.5 seconds 160°C – 170°C	2.5 – 3.5 seconds 160°C – 170°C	2.0 – 3.5 seconds 162°C – 174°C	2.0 – 3.5 seconds 160°C – 165°C
Characteristics	very good solvent resistant	very good solvent resistant	very good solvent resistant very high tensile strength	some solvent resistant 1 – 5% DMSO at +4°C or lower for up to a few weeks**	some solvent resistant 1 – 2% DMSO resistant for up to a few weeks**
Remarks (based on user feedback)	not resealable use for long term storage up to 5 years	3 – 5 times resealable* use for mid term storage up to 2 years	3 – 5 times resealable* use for long term storage up to 5 years	3 – 5 times resealable*	up to 8 times resealable* use for short term storage up to three month

* depending on plate type and sealing parameters

** DMSO concentration and storage temperature are serious issues. Prior testing to assess the suitability of the Thermo-Seal is recommended.

Pack size:

Pierceable Thermo-Seal:	5'000 seals/roll	100 sheets/pack
Removable Thermo-Seal:	5'000 seals/roll	100 sheets/pack
Extra-Durable Removable Thermo-Seal:	5'000 seals/roll	100 sheets/pack
Removable Thermo-Seal for PS-Plates:	5'000 seals/roll	100 sheets/pack
Clear Thermo-Seal:	5'000 seals/roll	100 sheets/pack

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