

Superior highly transparent adhesive sealing film for PCR plates, from BRAND®

Introduction

The innovative sealing film from BRAND (Cat. No. 7813 91) provides assurance for critical reactions (e.g., real-time PCR) with tight sealing and protection of precious samples. The high transparency allows visual monitoring of your samples and optical measurements through the sealing film. For easy handling the surface of the pressure-sensitive sealing film is non-tacky and end-tabs are available.

Most persuasive is the outstanding evaporation protection of the innovative sealing film. It adheres after pressure because of micro-encapsulated beads. No additional tools are required for application, but a sealing paddle can be used to facilitate attachment. This sealing film reliably seals every well and is removable without leaving residue on the plate.

In this technical note, common sealing films were tested with PCR plates from BRAND.

Material & Methods

■ Devices

Thermocycler Biometra T1
Transferpette® S (Cat. No. 7058 78)
BRAND PCR plate (Cat. No. 7813 75)
Pipette tips 200 µl (Cat. No. 7320 08)
TipBox (Cat. No. 7322 08)
Sealing paddle (Cat. No. 7013 81)
Reagent reservoir (Cat. No. 7034 59)

■ Chemicals reagents

Distilled water (10 ml [50 µl each well]),
cationic dye methylene blue

■ PCR sealing options

BRAND self-adhesive sealing film
Cat. No. 7813 91

Self-adhesive sealing film competitor 1
Self-adhesive sealing film competitor 2
Self-adhesive sealing film competitor 3
Self-adhesive sealing film competitor 4
Self-adhesive sealing film competitor 5

Measurement of evaporation losses of PCR plate (Cat. No. 7813 75) sealed with common self-adhesive sealing films

A mixture of water with the cationic dye methylene blue was prepared. In the PCR plate every well was filled with 50 µl of the water dye mixture and sealed with the different sealing films. The weighed portion of the plates and the sealing films was determined before and after the filling of the wells. The sealing was ensured with the sealing paddle. After that the PCR plates were put into the thermal cycler Biometra T1, a PCR run was performed (table 1) and the weighed portions were examined again.

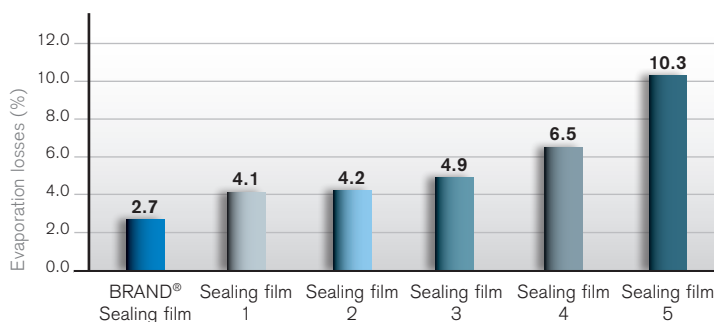
Temperatures and times during the thermal cycler process (table 1)

Temperature	Time
94 °C	3 min
94 °C	30 sec
50 °C	30 sec
72 °C	30 sec
72 °C	10 min

25 x

Analysis and Results

Evaporation losses of PCR plate (Cat. No. 7813 75) during PCR with different adhesive sealing films (fig. 1):



Conclusion

The test results of this analysis show that the adhesive sealing film from BRAND is optimal for sealing PCR plates. The minimal evaporation losses proved protection against sample losses and possible false results (fig. 1). Additionally the improved handling of the non-tacky sealing film facilitated proper handling.