

RAPID Slit Seal Evidence Sheet

-Airtightness to acetonitrile-

【Summary】

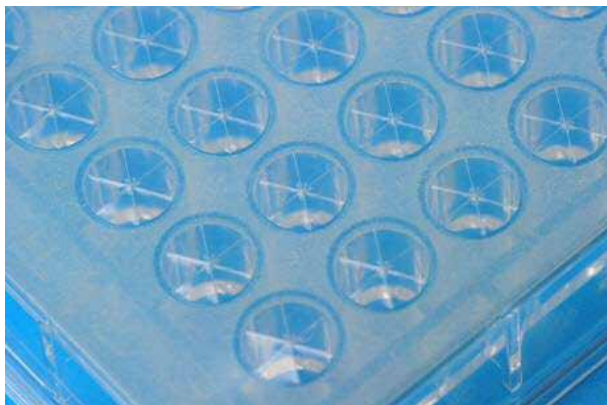
RAPID Slit Seal has high airtightness to 30% acetonitrile at 15°C

【Method】

We evaluated the performance of airtightness of RAPID Slit Seal by measuring the weight of plates over time for 72 hours. 250µL of 30/70 Acetonitrile/Water were dispensed to all wells of a 96 well plate. The plates were sealed with RAPID Slit Seal (non-use and sticking a hole one) and stored at temperature settings of 15°C. As a control for complete closed system, Aluminum Seals (non-heating) were used to cover well plates at the same condition. The verification was carried out by each 2 sheets for one kind of seal. Finally, we calculated the reducing rate of the plate weight. (as starting weight was 100%)

【Results】

The weight reducing rate after 72 hours are as follows;
Using Aluminum Seal : 0.7% of solvent was vaporized
Using a non-use RAPID Slit Seal: 7.7% of solvent was vaporized
Using a hole sticking (once) of RAPID Slit Seal: 8.2% of solvent was vaporized



<Table1> Weight

	0 hr	24 hr	48 hr	72 hr
① Aluminum Seal (non-heating)	62.226 g	62.059 g	61.875 g	61.704 g
② Aluminum Seal (non-heating)	62.237 g	62.105 g	61.951 g	61.801 g
③ RAPID Slit Seal (non-use)	62.926 g	60.981 g	59.280 g	58.084 g
④ RAPID Slit Seal (non-use)	62.904 g	60.967 g	59.268 g	58.065 g
⑤ RAPID Slit Seal (sticking a hole one)	62.776 g	60.449 g	58.658 g	57.520 g
⑥ RAPID Slit Seal (sticking a hole one)	63.007 g	60.847 g	59.147 g	58.006 g

<Table2> Volatilization rate (as starting weight was 100%)

	0 hr	24 hr	48 hr	72 hr
① Aluminum Seal (non-heating)	100 %	99.7 %	99.4 %	99.2 %
② Aluminum Seal (non-heating)	100 %	99.8 %	99.5 %	99.3 %
③ RAPID Slit Seal (non-use)	100 %	96.9 %	94.2 %	92.3 %
④ RAPID Slit Seal (non-use)	100 %	96.9 %	94.2 %	92.3 %
⑤ RAPID Slit Seal (sticking a hole one)	100 %	96.3 %	93.4 %	91.6 %
⑥ RAPID Slit Seal (sticking a hole one)	100 %	96.6 %	93.9 %	92.1 %

<Graph> Plotting the weight reducing rate by average of airtightness

