

Peeling Strength Verification Report of Continuous Gridded Membrane Wrapper

1. Verification purpose

Verify the peeling strength and effect of continuous gridded membrane packaging under different welding temperatures, and compare with the Millipore samples.

2. Verification method

2.1 Reference document: Refer to the SOP-ZG-R-027 work instruction for heat seal strength test developed by YBB00122003-2015 heat seal strength determination method.

2.2 Peeling strength test method:

2.21 Take the heat sealing part at the bottom of the packaging bag as the center, and cut 5 samples of the packaging bag with a width of 15mm and an unfolding length of 100mm (effective length of 50mm) perpendicular to the heat sealing part.

2.22 Measure the thickness of the heat-sealed part of the sample and expand it at 180° to clamp it on the fixture of the tensile tester.

2.23 Set the heat sealing strength parameters: ① Length 50mm, width 15mm, speed 300mm/min ② Thickness: the thickness of the heat-sealed part of the sample.


2.24 Press "Return", "Test" in sequence to enter the test interface, and wait for the computer to display the results and record the values.

2.3 Peeling effect:

Install in the dispenser for peeling to verify if the peeling is smooth.

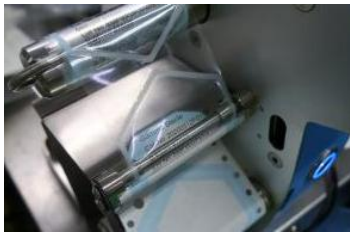
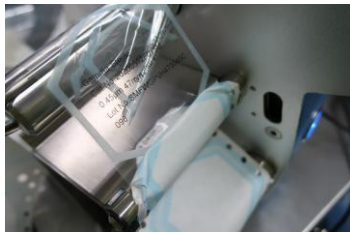
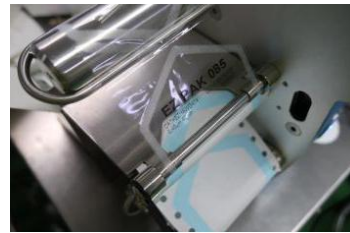
3. Validation results

3.1 Peel strength (Unit N/15mm)

Schematic diagram of peeling direction	Cobetter					Millipore
	Welding parameters					/
	150°C/2s	125°C/2s	120°C/2s	115°C/2s	110°C/2s	
 Welding line	4.210	1.537	1.013	1.018	0.796	1.031
	4.113	1.421	1.480	1.115	0.967	1.053
	3.583	1.213	1.213	1.412	1.137	1.114
	3.674	1.217	1.470	1.151	0.922	1.023

	3.540	1.315	1.235	1.211	0.948	0.832
Data range	3.540-4.210	1.213-1.537	1.013-1.480	1.018-1.412	0.796-1.137	0.832-1.114
Peeling effect	The welding line is firm	The welding line is firm	The welding line is firm	The welding line is not firm	The welding line is not firm	The welding line is firm
Conclusion	Under the premise that the welding line is firm, the peeling strength of membrane packaging with the welding parameter of 120°C/2s is closest to the Millipore product					

3.2 Peeling effect

	Cobetter		Millipore
	Welding parameters 120°C/2s	Welding parameters 150°C/2s	/
Peeling Photos			
Conclusion	Peeling smoothly, packaging bag is flat	Peeling got some stuck, packaging is crumpled	Peeling smoothly, packaging bag is flat

4. Verification conclusion

In summary, after lowering the welding temperature (120°C), the peeling strength of the continuous gridded membrane is reduced, and the peeling effect is good, which can be used in production. Follow up to see the using effect of the clients.

