



AHLSTROM
MUNKSJÖ



NEXT GENERATION OF CONJUGATE PAD

Ahlstrom-Munksjö Grade 8980
for Rapid Diagnostic Tests

Our Next Generation of Conjugate Pad for improved uniformity

Discover Grade 8980

Ahlstrom-Munksjö is committed to continuously improve its offering and develop innovative materials for the manufacturing of IVD devices. Our new 8980 conjugate pad designed for Lateral Flow Immuno Assays applications represents a rapid, cost-effective, easy-to-use and close-to-the-patient solution for achieving reliable and consistent results. With this new conjugate pad, we investigate ways to improve the performance of the fiber glass with binder type of conjugate pad. Our process methods have been updated with a more uniform fiber distribution as compared to other materials.

All our conjugate pads can be chemically pre-treated and customized in terms of cutting and packaging to better meet our customers' requirements.

Grade 8980 is suitable for a wide range of applications including:

- Infectious disease screening
- Pregnancy tests
- Drug abuse monitoring
- Veterinary diagnostics
- Food and beverage testing
- Environmental safety

Why choose Grade 8980?

Improved uniformity – Grade 8980 offers improved performance consistency of Lateral Flow Assays

Our manufacturing process has been improved to produce the 8980 grade with an higher spot to spot consistency compared to grade 8964 or other competitors' products. Our expertise in the selection and mix of fibers, led to a strong reduction of fiber bundles, allowing to consequently achieving consistent thickness and even wicking rate.

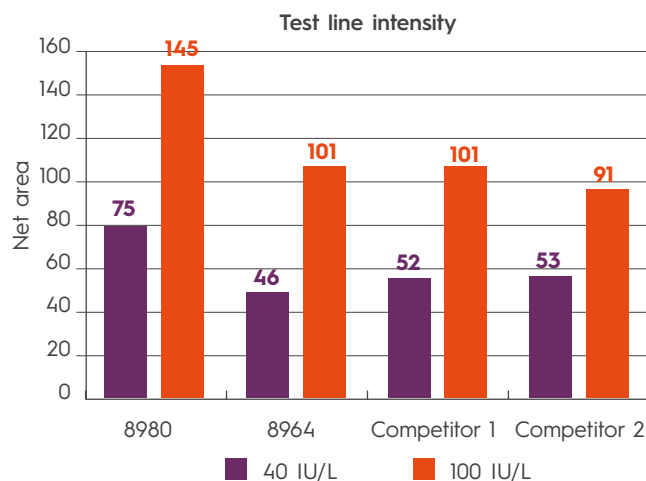
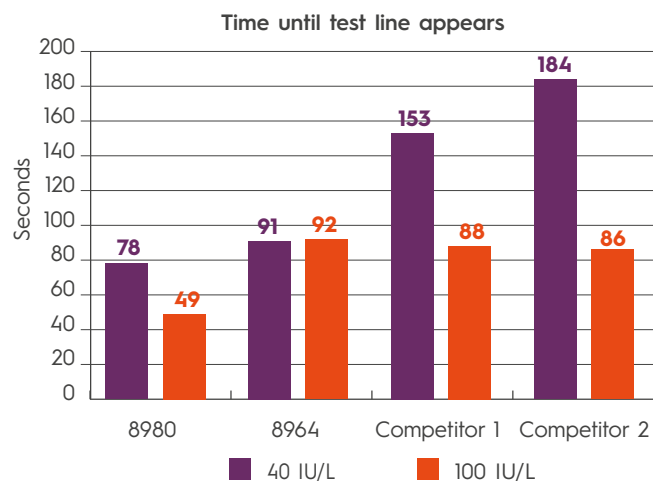


Grade	Basis Weight g/m ²	Thickness EDANA 1,96 KPa µm	Air permeability 200 Pa l/m ² /s	Capillary rise 2 cm s	Capillary rise 4 cm s	Water Absorption mg/cm ²
8980	80	549	2.203	3	19	47
8964	76	577	1.635	11	97	54
Competitor 1	75	593	1.760	33	Failed	57
Competitor 2	73	500	3.280	46	>300	41

Better sensitivity in a shorter time.

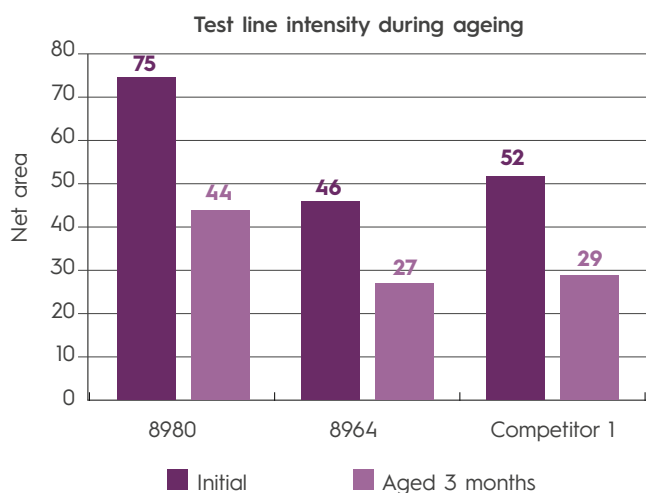
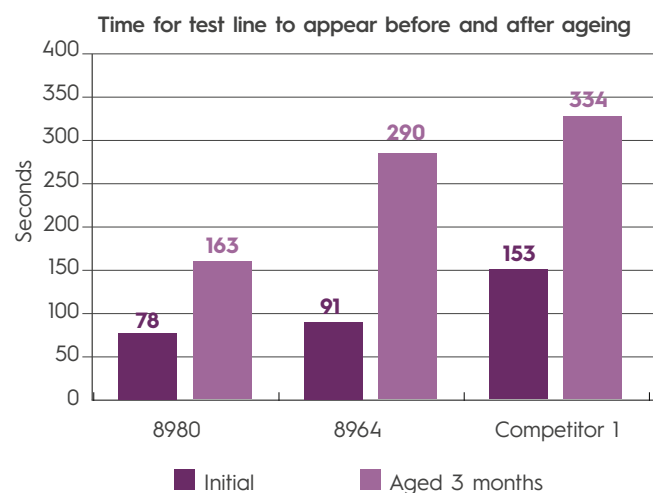
Faster detection of a lower concentration of analytes.

Grade 8980 shows excellent conjugate release properties. The test line appeared more quickly, allowing for faster reading of the test, and at a greater line intensity, improving the readability of the test. These advantages were present at both high and low analyte concentrations.



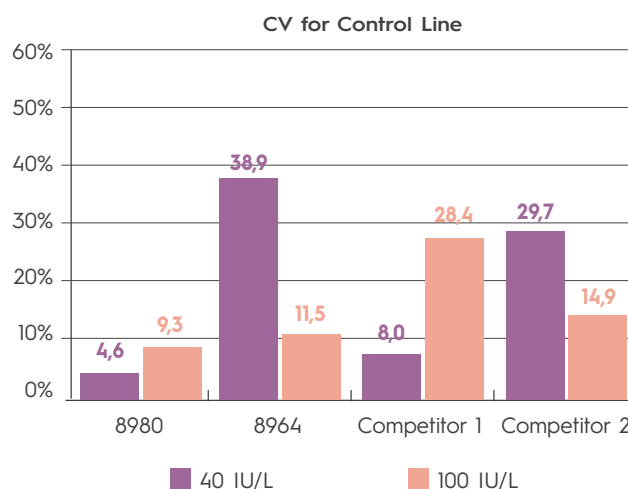
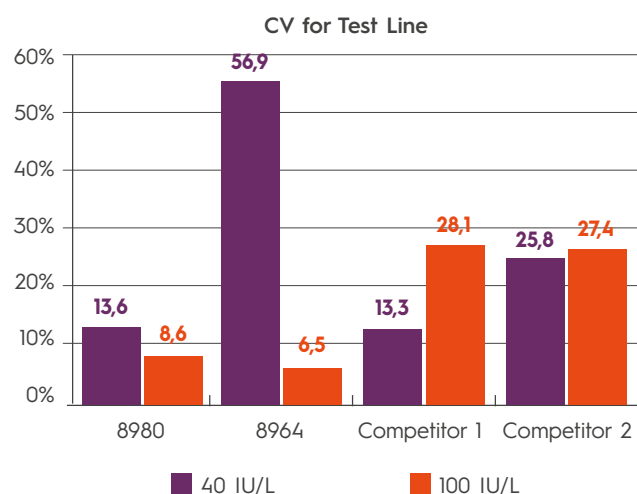
Best stability over time. Longer shelf life.

The excellent conjugate release properties are persistent after the test has aged. Samples with conjugate lines dispensed on them were placed in accelerated aging conditions to simulate an initial shelf life of three months. The appearance time and sensitivity of the test line on 8980 changed the least.



Lowest coefficient of variation. Suitable for quantitative tests.

The coefficient of variation in the sensitivity of both the test line and the control line is lowest in Grade 8980. Reduced variation in the performance of the material improves the ability of results to be evaluated quantitatively.



Biotinylated Antibody and Gold or Cellulose Nanobeads Dispensing

Biotinylated antibody and gold/CNB anti-hCG reagents were dispensed at the same rate on both sides of each material. Evaluation of the spray pattern shows differences in reagent spread in both 8964 and 8980 conjugate pads.

Gold or cellulose nanobeads conjugates make an even line whatever the side when dispensed onto grade 8980. The biotinylated antibody remained separate from the conjugate for grade 8980. The pattern for grade 8980 is also more uniform, allowing easier readability.

Evaluation of Biotinylated Antibody and Gold Conjugate spray patterns

Conjugate Pad	Air Side	Wire Side
8964		
8980		

Evaluation of Biotinylated Antibody and CNB Conjugate spray patterns

Conjugate Pad	Air Side	Wire Side
8964		
8980		

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