



Tensile Properties of Breath Freshening Strips

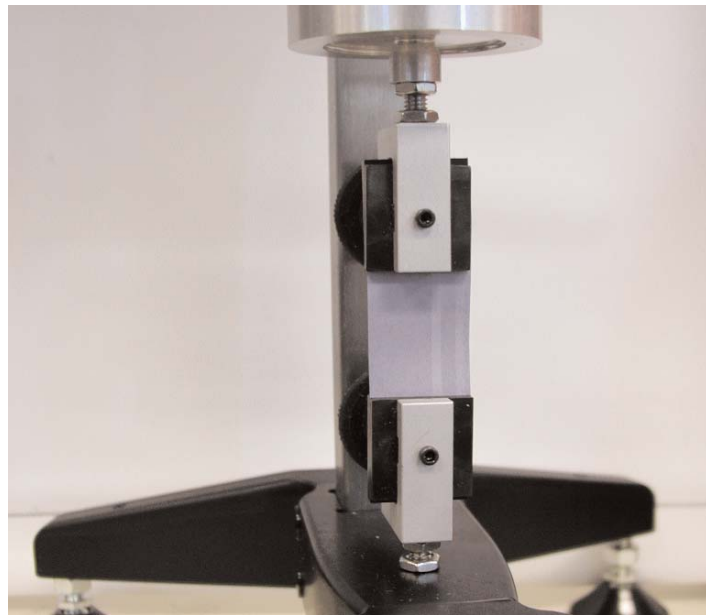
Application Report

Introduction

A manufacturer of consumer breath freshening strips uses the In-Spec™ 2200 electromechanical system to determine the tensile strength and elongation of their products. These results provide quality assurance in manufacturing and production, ensuring customer satisfaction. Three different flavored varieties of the breath freshening strips were tested.

Test Configuration

- EM system:** In-Spec 2200
- Fixtures:** Mini single side action grips (serrated)
- Load cell:** 500 N
- Specimen geometry:** Rectangular
- Software:** Series IX™
- Test speed:** 0.001 in/sec

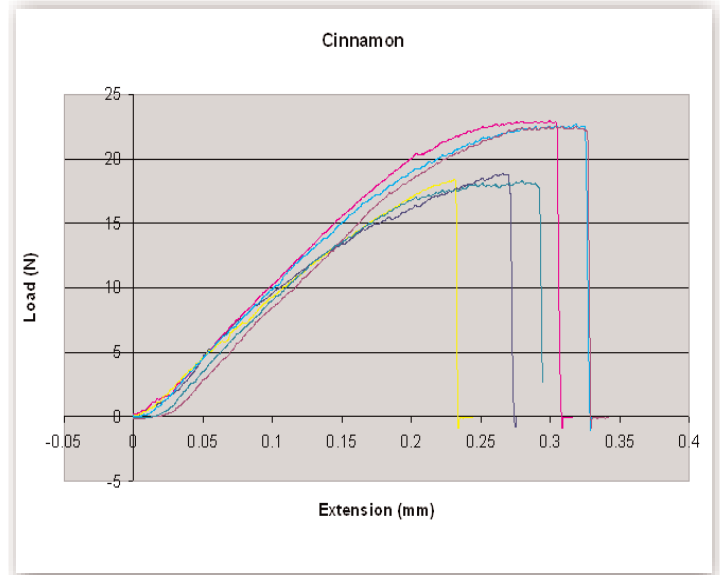


▲ **Figure 1:**
Specimen placed within mini single side action grips before the start of the test.

Conclusion

The results from this series of tension test demonstrate some consistency between the different flavored breath strips. This information is vital for manufacturing since it provides a range in which production will be more effective. In conclusion, the In-Spec 2200 system was able to successfully perform these tension tests and the configuration used would be recommended for such future applications.

Results



▲ **Figure 2:**
Load vs. extension for six cinnamon flavored strips.

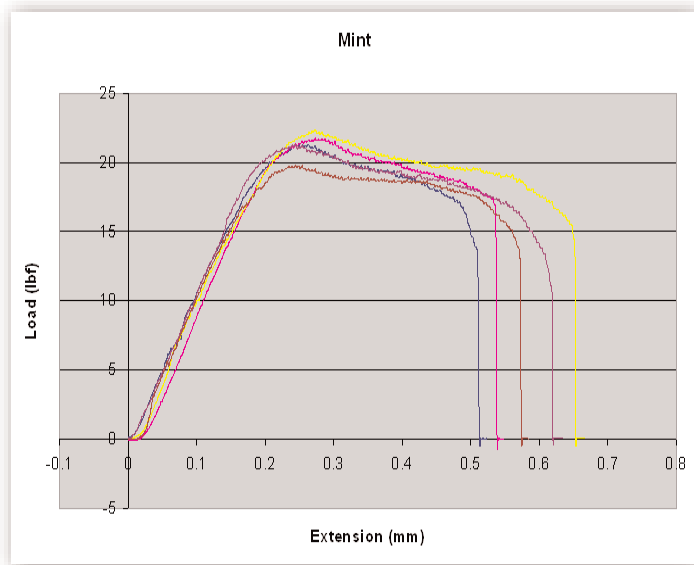
Specimen #	Extension at Max Load (mm)	Max Load (N)
1	0.304	23.112
2	0.254	18.972
3	0.228	18.547
4	0.330	22.861
5	0.304	22.682
6	0.279	18.403
Mean	0.279	20.760
S.D.	0.034	2.132

▲ **Figure 3:**
Results for six cinnamon flavored strips.

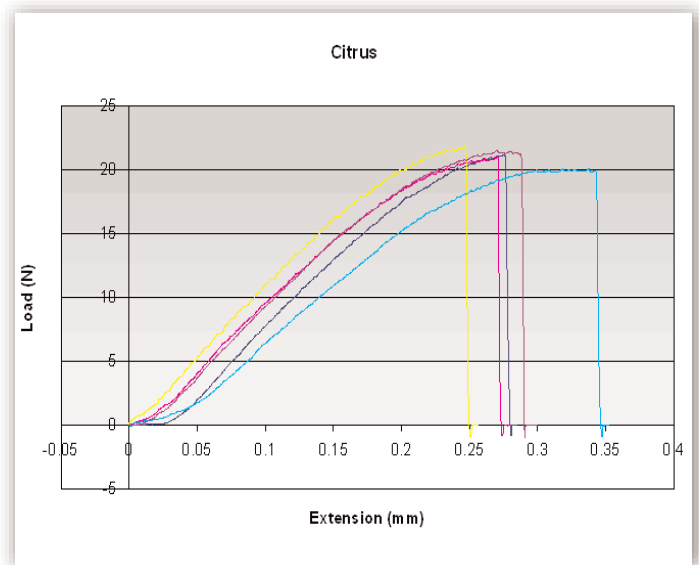
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Results - Continued



▲ Figure 4:
Load vs. extension for five mint flavored strips.



▲ Figure 6:
Load vs. extension for five citrus flavored strips.

Specimen #	Extension at Max Load (mm)	Max Load (N)
1	0.254	18.837
2	0.228	18.414
3	0.330	22.698
4	0.304	22.520
5	0.279	18.272
Mean	0.279	20.612
S.D.	0.034	2.117

▲ Figure 5:
Results for five mint flavored strips.

Specimen #	Extension at Max Load (mm)	Max Load (N)
1	0.279	21.275
2	0.279	21.141
3	0.254	21.965
4	0.330	20.186
5	0.279	21.642
Mean	0.279	21.244
S.D.	0.024	0.601

▲ Figure 7:
Results for five citrus flavored strips.



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