Production: BREATH STRIPS

Objective: Comparison of the film burst strength of fresh and 13 day old breath strips

Type of action: Burst test

Test mode settings:

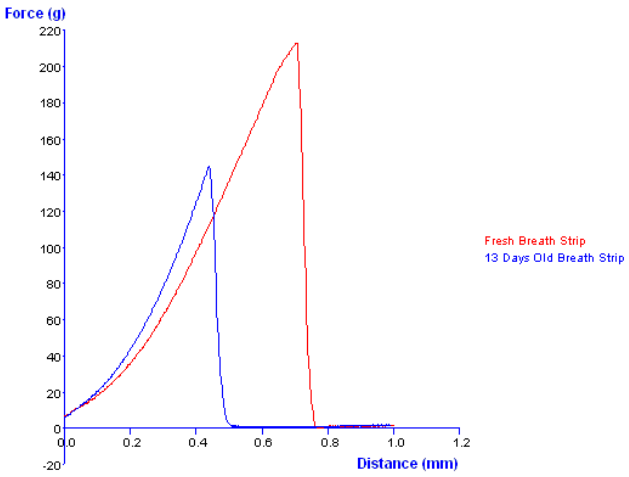
Speed	Test mode	Trigger	Target	Hold
1 mm/s	Distance (c)	5 gf	5 mm	0 sec

Accessory:
Film puncture (SP05) rig, Platform

Sample Preparation:
Breath strips are removed from sealed packing shortly before testing to test the film burst strength of fresh strips. Breath strips are removed from packaging 13 days prior to test.

Test Set-Up:
The film support rig is fitted to the heavy duty platform and positioned loosely on the machine base. The ball probe is connected to the load cell with a probe adaptor (AD10) and the film puncture rig is aligned with the ball probe to ensure the probe can move centrally through the aperture without contacting the film support rig. When positioning is complete the heavy duty platform is fixed securely to the machine base.

Typical plots:



Texture Analyzer Plot for Fresh and 13 Day Old Breath Strips

Observations:
The test begins with the probe moving at the pre-test speed. When the probe reaches the surface of the breath strip and the trigger load is reached the probe speed changes to the test speed and data is recorded. As the probe deflects the breath strip the force increases until the breath strip bursts. The peak force is the film burst strength and the displacement is the distance to burst, which is an indication of the flexibility of the film.

Data Analysis:

☒Max Force

Results

Film Sample Type	Mean Burst Strength (+/- S.D.) (g)	Mean Distance to Burst (+/- S.D.) (mm)
Fresh Strips	244.06 +/- 27.41	0.76 +/- 0.06
13 Day Old Strips	144.51 +/- 11.61	0.44 +/- 0.03

Notes:

- This application study can be extended to other film samples. The target distance may need to be increased for more flexible films and a higher capacity load cell may be required for thicker, higher burst strength films.