

**Production:** LEAF GELATINE

**Objective:** Comparison of the burst strength of dry and soaked leaf gelatin

**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 Penetration (SP05) rig, Platform

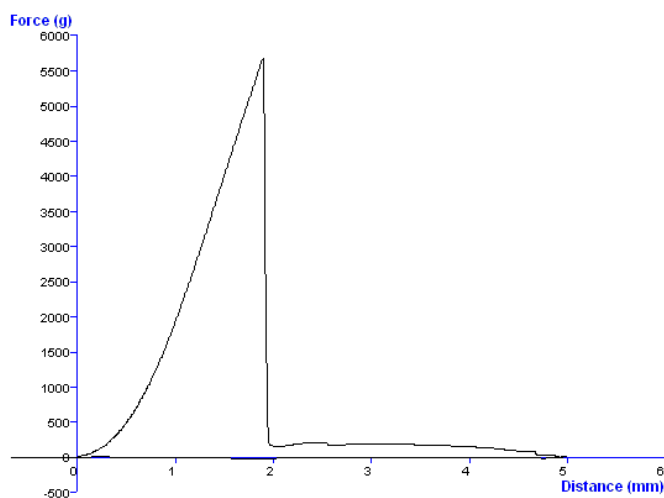
**Sample Preparation:**

Sheets of dry gelatin were broken into small squares approximately 30 mm x 30 mm and the soaked gelatin (soaked for 5 minutes in cold water) was cut into 30 mm squares. Five samples of each gelatin type were tested to generate the results below.

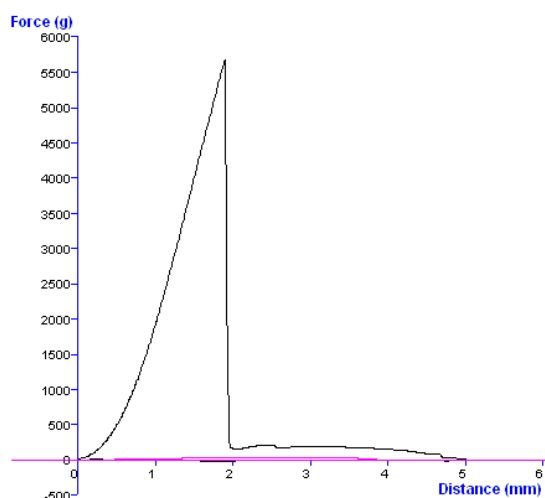
**Test Set-Up:**

The film support rig is fitted to the heavy duty platform and positioned loosely on the machine base. The spherical probe is connected to the load cell with a probe adaptor (AD10) and the film support rig is aligned with the spherical 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:**



Graph 1. Typical Texture Analyzer Plot for Leaf Gelatin



Graph 2. Texture Analyzer Plot for Dry and Soaked Leaf Gelatin

**Observations:**

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

**Data Analysis:**☒ Max Force☒ Peak Distance**Results**

Film Sample Type	Mean Burst Strength (+/- S.D.) (g)	Mean Distance to Burst (+/- S.D.) (mm)
Dry Gelatin	4954.5 +/- 688.8	1.70 +/- 0.17
Soaked Gelatin	39.79 +/- 0.40	3.40 +/- 0.44

**Notes:**

- This application study can be extended to other film/sheet 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.