

Installation Instructions for Texture Accessory Part TA-FSF

TA-FSF – Film Support Fixture

The Film Support Fixture provides a way to measure the burst strength of thin film materials used in various applications such as packaging, adhesive tapes, medical bandages, personal care sachets, and many more. The film can be made from a host of possible materials such as spun polymers, textiles, foils, or any other candidate that allows for flexible stretching during application. The protective property afforded by the material may be correlated with its stretch behavior and ultimately the puncture force needed to rupture the material.

TA-FSF is used with the CT3 Texture Analyzer to test a film sample that is cut to the appropriate size for placement on the Film Support Base Table Insert, and then secured in place by the Film Support Clamping Disc. Two Lock Nuts fasten the Clamping Disc to the Base Table Insert.

The Film Puncture Probe is attached to the CT3 and brought down into position above the center hole in the Clamping Disc. Note that the probe has a rounded surface so that it will not cut the film upon making contact. A probe test speed appropriate for the material being evaluated is selected. Values can range from a fraction of 1 mm/sec up to 10 mm/sec. Once the test commences, the Film Puncture Probe makes contact with the film and stretches it to a distance defined by the test technician. If rupture takes place during that period of travel, the measured force will suddenly drop. If rupture does not take place, the test technician may be instructed to increase either the travel distance or the rate of probe travel and repeat the test. The peak load is the burst strength of the foil.

The packaging engineer and/or materials scientist can use the TA-FSF to evaluate film materials, identify weaknesses relative to the intended use, and adjust formulations for the film accordingly to enhance structural properties. Other facets of material behavior, such as stretchability, can be evaluated using this same method.

