



# Spencer Impact Attachment

Model 83-76

## IMPACT RESISTANCE TESTING FOR PLASTIC FILMS

Film manufacturers that produce packaging materials for plastic bags and packaged goods require increased impact/puncture strength for product integrity during packaging and transport.

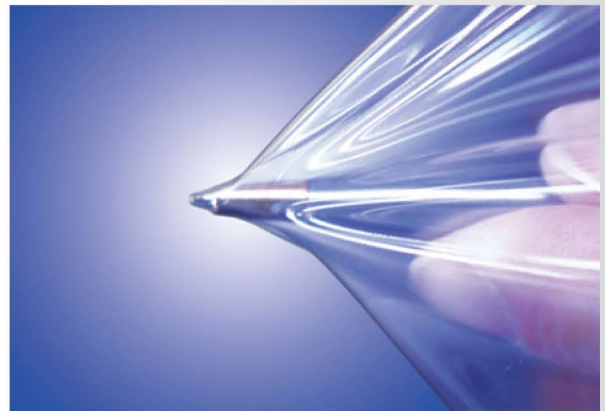
Impact resistance of plastic films provide useful information to determine the energy required to puncture a film sheet. Two primary dynamic impact methods exist for measuring plastic film. The Dart Drop method based on ASTM D 1709 is a pass/fail test. The test records the weight of the dart which penetrates through the film sample. ( See TMI Part # 43-61)

The Spencer Impact method is based on ASTM D 3420. An attachment to the Elmendorf Tear Tester is mounted on the top of the instrument and measures the puncture impact resistance of a plastic film sheet or other related sheet-like material. The fixture consists of a probe mounted onto the end of the Elmendorf pendulum and an air-operated clamp used to secure the film sample. The unit measures the resistance to impact/puncture as the probe penetrates a sheet of plastic film.

The TMI Spencer Impact fixture consists of an air-operated clamping ring with a diameter of 89.0 +/- 0.5 mm. The puncture Impact arm has a radius of 12.7mm and a diameter of 19.0 mm. Measurement ranges include 200, 400, 800, 1600, 3200 and 6400 gf.

Spencer Impact Attachment meets ASTM D 3420 (part B). Available ranges based on pendulum capacity:

- gf.....J (cm·kgf)
- 200.....0.169 (1.7)
- 400.....0.338 (3.4)
- 800.....0.675 (6.8)
- 1600.....1.35 (13.5)
- 3200.....2.70 (27)
  
- **Part Number:** 83-76-01-0002
- **Specimen size:**
  - Square – 127 mm x 127 mm
  - Round – 127 mm diameter



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