

**ASSESSMENT OF TEAR STRENGTH OF FABRICS AND
ARTIFICIAL LEATHERS**

Application

This procedure is used to evaluate the tear strength of fabrics and artificial leathers.

Apparatus Required

The tensile machine required for this test shall be equipped with an autographic recording device.

Conditioning and Test Conditions

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2 °C and 50 +/- 5 % relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.

Procedure

1. The test specimens shall be cut from different areas of the material under test in both the warp (longitudinal) and weft (transverse) directions. Prepare at least five specimens 100 x 50 mm in size in each direction. Make a cut 50 mm in the center of the narrower side of the test specimen.
2. Clamp the ends of the cut section into the upper and lower jaws respectively in a manner such that the bottom of the cut is positioned centrally between the jaws, and the line of the cut is parallel to the direction of the pull.
3. Start the machine, and tear the specimen at a rate of 125 mm/min, insuring that an autographic recording is made of the complete tearing cycle.

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2001 09 17	Revised	Editorial – no technical change A. Cockman
1994 08 19		

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4. Read and record five consecutive peak-values from the diagram, chosen in a way such as to insure that the mid-point value (third value) is as near as possible to the middle of the curve.
5. Compute the mean of the 5 values required to tear the warp threads and weft threads separately.

Note: Should the test specimen tear in a lateral direction, split itself, or have individual yarns drawn out of it, then the test must be repeated using a new test specimen.

Chemicals, materials, parts, and equipment referenced in this document must be used and handled properly. Each party is responsible for determining proper use and handling in its facilities.