

EDS

Engineering,
GM DAEWOO Auto & Technology
Standards

THE TEST METHOD FOR TEAR STRENGTH OF ELASTOMERS

EDS-T-7521

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VERSION: 3

1. PURPOSE

This standard covers the determination of the tear strength of elastomer tested at **GMDAT**.

2. APPLICATION

This standard applies to measure tear strength for vulcanized rubber or PP/EPDM blend with highly filled EPDM rubber and is unreasonable for rigid rubber.

3. DEFINITION

3.1. Tear strength: A measure of the energy required to propagate a tear in a flexible material such as a thin plastic film or elastomer. The tear strength is usually expressed as the ratio of the maximum load to the thickness of the specimen.

4. TEST SPECIMEN

4.1. The test specimen shall conform in shape as Fig. 1.

4.2. The thickness of specimen shall be measured in three places across the width of the specimen, near its center, and taken average value.

4.3. The thickness of the specimen should not fall outside the limits of 1.3 to 3.2mm.

4.4. Five specimens per sample shall be tested for tear strength and two values which have large deviation for tear strength is rejected and taken average value of three values.

5. TEST CONDITION

If there is no specified in the drawing, the specimen shall be maintained at $23\pm 2^{\circ}\text{C}$, $(20\pm 5)\%$ of the relative humidity at least 48 hours, prior to testing.

6. APPARATUS

6.1. Tensile strength measuring equipment

It shall be maintained the test speed $500\pm 50\text{mm/min}$ and have a load/elongation recorder.

6.2. Thickness measuring device

6.3. Cutters or shears for taking test pieces.

7. PROCEDURE