

KES

Test Method for Rubber Crack Growth

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Contents

1. Scope of Application
2. Test Equipment
3. Test Sample
4. Test Method
5. Test Condition and Record



1. Scope of application

This standard shall be applied to determine crack growth of a rubber product under repeated bending load. Particularly, method B in ASTM D 430 shall be applied to the test of synthetic rubber against initial crack.

2. Test equipment

2.1 De Mattia tester

There are adjustable fixed member that clamp an end of test sample and movable member that clamp the other end of test sample in the tester.

Rotating speed of a motor that drive each member is 300 ± 10 cpm and maximum moving distance of driving member is 100mm. All sample are fixed on one bar in the tester. It is designed to load all simultaneously.

2.2 Metal die

This is used for making test sample. Several metal dies can be made. Minimum thickness of metal die is 13mm and minimum thickness of upper plate is 6mm.

2.3 Measuring scale

Measuring scale for measuring thickness of test sample is written in ASTM D 412 (Tensile test of rubber).

3. Test sample

3.1 Sample standard

Test sample has smooth surface and has no flaw and no alien substance in its groove as shown in the figure 1. Measure thickness of test sample around groove and it is $6.4\text{mm} \pm 0.1\text{mm}$.