Afera 4014 (EN 12028) Test Method

Elongation of Adhesive Tapes under Reduced Load

1. Scope

The test method is designed to measure the elongation of an adhesive tape under a low tension maintained over a relatively short period. This method gives an indication of the elongation of an adhesive tape under tension in use. This test is particularly applicable to tapes based on highly stretchable backings.

2. Summary of Test Method

The tape is subjected to a relatively light load for a brief but definite period of time under standard test conditions. The resulting elongation of the tape is measured.

3. Apparatus

3.1 A rule, 1 metre long, graduated in millimetres, suitably supported in a vertical position with the zero marking uppermost.

3.2 A holder fixed at the zero end of the rule, enabling the tape to hang freelywithout touching the rule.

3.3 A second holder with suitable means for attaching weights, designed to avoid contact with the rule.

3.4 Appropriate weights to exert a force of 10 N/cm width of tape including the weight of the second holder and attachment.

3.5 Stop-watch or other timer.

3.6 Standard test conditions: (23 ± 1) °C and (50 ± 5) % relative humidity.

4. Test Specimens

4.1 Discard the three outer turns of tape from the roll before taking specimens. Take five specimens 600 mm in length from the roll.

5. Procedure

5.1 Condition the sample rolls for 24 hours in the standard test conditions prior to testing. Remove the specimens radially from the roll at approximately 300 mm per second, then condition for a further two hours in the standard test conditions in order to remove all strain and distortion due to unwinding.

5.2 Fix the specimen to the two holders so that the distance between them is exactly 500 mm.

5.3 Place the assembly in the standard test conditions.

5.4 Add to the lower holder the appropriate load for the width of tape, ensuring that the tape and attachments are not touching the rule. Allow to hang freely. At the end of one minute precisely, measure the length of tape between the two holders.

6. Results

6.1 Record the results as the percentage increase in length of the tape.

6.2 Arrange the five readings in ascending numerical order; take the median

value as the result.

7 Report

The test report shall comprise the following:

- Reference to this Afera TM

- Full designation of the test sample material

- Date of testing

-Results

- Any deviation from the procedure described in this method that may influence the results.

Issued September 1979