



Low-density papers

Heat treatment for curing tests

1 Scope

This SCAN-test Method specifies conditions for the curing of low-density papers prepared with wet-strength agents. It is intended for use when the physical properties are to be determined before and after heat treatment, in order to evaluate the curing behavior of the material.

The Method is applicable to all kinds of low-density papers containing wet strength agents, including those prepared in laboratory trials.

Note – The Method recommends two standard time periods for the heat treatment, 30 min and 24 h. The longer period may be used when testing ageing effects. Knowledge is however presently scarce concerning the relevance of such an ageing test for predicting actual storing changes.

2 Principle

The paper is heated in air at 80 °C for 30 min or at 80 °C for 24 h.

3 Reference

ISO 187 Paper and board – Standard atmosphere for conditioning and testing and procedure for monitoring the atmosphere and conditioning of samples

Note – SCAN-test has withdrawn a number of test methods and refers instead to the corresponding ISO and/or EN Standards.

4 Apparatus

4.1 *Drying oven.* controlled at a temperature of (80 ± 2) °C. When closed, the oven shall attain the prescribed temperature within 5 min after it has been opened for the introduction of the samples.

5 Procedure

Suspend the samples in the oven so that uncontaminated air can circulate around each test sample. Close the oven door and note the time. Do not open the oven door during the heat treatment. After (30 ± 1) min, or 24 h, as relevant, remove the samples and condition them for

30 min in the atmosphere specified in ISO 187. Do not start any tests on a heat-treated sample until it has been in contact with the conditioning air for at least 30 min.

6 Report

In the final report, state that heat treatment has been carried out as specified in this SCAN-test Method.

Note – When the influence of heat treatment is being investigated it is generally advisable to plan the experiments so that treated and un-treated samples are tested in parallel. The report should include the results obtained for both kinds of samples and not merely a relationship between them, such as the percentage deterioration.