NOTICE: This is a DRAFT of a TAPPI Standard in ballot. Although available for public viewing, it is still under TAPPI’s copyright and may not be reproduced or distributed without permission of TAPPI. This draft is NOT a currently published TAPPI Standard.

WI 201202.04
T 1006
DRAFT NO. 03 SARG
DATE October 20, 2022

WORKING GROUP
CHAIRMAN To be determined

SUBJECT
CATEGORY Building & Industrial Mat

RELATED
METHODS See “Additional Information”

CAUTION:
This Test Method may include safety precautions which are believed to be appropriate at the time of publication of the method. The intent of these is to alert the user of the method to safety issues related to such use. The user is responsible for determining that the safety precautions are complete and are appropriate to their use of the method, and for ensuring that suitable safety practices have not changed since publication of the method. This method may require the use, disposal, or both, of chemicals which may present serious health hazards to humans. Procedures for the handling of such substances are set forth on Material Safety Data Sheets which must be developed by all manufacturers and importers of potentially hazardous chemicals and maintained by all distributors of potentially hazardous chemicals. Prior to the use of this method, the user must determine whether any of the chemicals to be used or disposed of are potentially hazardous and, if so, must follow strictly the procedures specified by both the manufacturer, as well as local, state, and federal authorities for safe use and disposal of these chemicals.

Testing of fiber glass mats: use of modified TAPPI procedures for sampling and lot acceptance, stiffness, tear resistance, and thickness
(Five-year review of Standard Practice T 1006 sp-15)
(Re-balloted due to low percentage of votes)
(No changes from previous draft)

1. Scope

The purpose of this standard practice is to list existing TAPPI test methods which provide procedures for sampling and lot acceptance, stiffness, tear resistance, and thickness, and to suggest modifications to these methods for use in the sampling and testing of fiber glass mats.
Testing of fiber glass mats: use of modified TAPPI procedures for sampling and lot acceptance, stiffness, tear resistance, and thickness

2. Sampling and lot acceptance

2.1 Use TAPPI T 400 “Sampling and Accepting a Single Lot of Paper, Paperboard, Containerboard, or Related Product.”

2.2 The method of sampling and lot acceptance may be applied to each of the physical properties to be determined.

2.3 Any alternate sampling method, agreeable to both buyer and seller, may be employed.

3. Stiffness

3.1 Use TAPPI T 489 “Stiffness of Paper and Paperboard (Taber-type).”

3.2 Obtain samples in accordance with TAPPI T 1007 “Sample Location.”

3.3 Test specimens shall be cut in each principal direction, machine direction and cross machine direction.

3.4 Conditioning: for referee testing, condition samples for 5 h at 77 ± 2°F (25 ± 1°C) and 50 ± 3% relative humidity.

3.5 Under routine circumstances, samples may be conditioned for 0.5 h and tested at ambient laboratory conditions.

3.6 Measure thickness in accordance with Section 6 of this method.

3.7 Report: include laboratory ambient temperature and relative humidity.

4. Tear resistance

4.1 Use TAPPI T 414 “Internal Tearing Resistance of Paper (Elmendorf-type method)” except:

4.2 Obtain sample in accordance with TAPPI T 1007 “Sample Location.”

4.3 Disregard Section 7.5. The line of tear of many fiber glass mats will not pass through the top of the specimen due to the nature of the mat.

4.4 Use either an 800- or 1600-g pendulum instrument and test with a single ply of mat so that the resultant scale reading on the instrument is between 20% and 80% of the total load on the testing instrument.

4.5 Collect samples for individual testing across the web on a per lane basis of one sample per every 38.1 to 45.7 cm (15 to 18 in.). Test samples and record the average as the test result for tear resistance.

4.6 Report the average tear strength in each direction (MD and CD).

4.7 Report the standard deviation of the result in each direction (MD and CD).
5. **Thickness**

5.1 Use TAPPI T 411 “Thickness (Caliper) of Paper, Paperboard, and Combined Board,” except:

5.1.1 The anvil shall have a diameter of 2.5 in. (64 mm) and the presser foot shall have a diameter of 2 in. (51 mm).

5.1.2 The pressure used at measurement shall be 19.1 g/cm² or 387 g load for the 2-in. (51-mm) diameter presser foot.

5.1.3 Obtain sample in accordance with TAPPI T 1007 “Sample Location.”

5.2 Other presser foot diameters and other pressures may be used if agreed upon between user and supplier. However, it is recognized that such differences may result in different reported values of thickness for the same sample of mat.

6. **Precision**

Statements of precision are applicable for each individual method referenced, and are stated in each referenced method.

7. **Keywords**

Fiber mats, Glass fibers, Sampling, Bend strength, Tear strength, Thickness, Stiffness

8. **Additional information**

8.1 Effective date of issue: To be assigned

8.2 Changes in the 2015 edition included clarification of the sampling procedure in 4.5.

*Your comments and suggestions on this procedure are earnestly requested and should be sent to the TAPPI Standards Department.*