



Standard Method of Test for

BURSTING STRENGTH OF CORRUGATED AND SOLID FIBERBOARD¹



ASTM Designation: D 2738 - 71

This Standard is issued under the fixed designation D 2738; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last approval.

1. Scope

1.1 This method covers the procedure for measuring the bursting strength of corrugated and solid fiberboard, except triple-wall corrugated. For the bursting strength of paperboard, see ASTM Method D 2529, Test for Bursting Strength of Paperboard and Linerboard.²

2. Significance

2.1 The bursting strength of combined board is primarily an indication of the character of the materials used in manufacturing a fiberboard box and has value in this respect. On the other hand, it gives no direct information regarding the ultimate performance of design or construction of the finished container and correlates very poorly, if at all, with most of the performance values of the container. Bursting strength of combined board is a requirement of the various

carrier regulations and federal specifications for shipping containers. The bursting strength of the component paperboard is of critical importance as a control test in the paperboard mill since the conformity of the finished container is generally controlled by the bursting strength of the paperboard. Triple-wall corrugated board cannot be tested suitably by the bursting method. Testing of double-wall board is of questionable accuracy since it is rarely possible to get sufficiently simultaneous bursts of the multiple facings. The test is simple and rapid to execute but it must be recognized that it is subject to serious errors if instrument, diaphragm, and gages are not properly maintained or if improper procedures are used. (1,2,3)

3. Apparatus

3.1 *Bursting Tester*, consisting of the following:

3.1.1 Means for clamping the test specimen between two annular, plane surfaces having fine concentric tool marks to minimize slippage. The upper clamping platen shall have a diameter of 3.75

¹ Under the standardization procedure of the Society, this method is under the jurisdiction of the ASTM Committee D-6 on Paper and Paper Products.

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² *Annual Book of ASTM Standards*, Part 15.