

Call Letters	PSTC 5
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1. DEFINITION

1.1 Quick stick is the property of a pressure sensitive tape that allows it to adhere to a surface under very slight pressure.

It is measured as the force resisting peeling of a unit width of tape at a 90° angle from a standard surface upon which it has been applied under no other pressure than the weight of the tape itself.

2. SIGNIFICANCE

2.1 Quick stick is a measure of a tape's ability to adhere with minimum pressure.

3. TEST SPECIMEN

3.1 For test specimen conditioning, selection, and test conditions, see Appendices A & D.

3.2 The test specimen shall be no greater than 24 mm (1") nor less than 12 mm (1/2") wide and approximately 300 to 375 mm (12 to 15") long. A width tolerance of $\pm .04$ mm (1/64") shall be allowed.

4. EQUIPMENT

4.1 Tensile tester. See Appendix B.

- * ChemInstruments
- * Instron
- * MTS Systems
- * Texture Technologies

4.2 Panel. See Appendix B.

- * ChemInstruments

4.3 Fixture, quick stick test. See Appendix B.

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5. TEST METHOD (See Figures)

5.1 Clean panel as per method in Appendix C.

5.2 Hold the specimen parallel to and about 100 mm (4") above the cleaned test panel so that 125 mm (5") at one end is directly over the panel length. Touch the specimen end directly above the panel to the end of the panel nearest to it. Relax tension at the other end of specimen allowing specimen to drape smoothly onto panel. Assure that the tape is put on the panel without any foreign pressure and that the edges of the tape run parallel to the long edges of the panel (Figure 1).

5.3 Immediately insert the panel (the end of the panel with the free end of the test specimen first) into the fixture which has previously been secured in the lower jaw of the adhesion machine. Place the hook and the pulling cord on the far end of the panel if test jig is equipped accordingly (Figure 2). Press over the adhesive surface of the free end to form a 24 mm (1") tab and clamp in the upper jaw of the adhesion tester. Make sure at this point that the free end is taut and the panel in the fixture is in position so that the free end forms a right angle with the panel. Start crosshead or moveable jaw in motion immediately at a rate of 300 mm/min (12"/min). Disregard the values obtained while the first 24 mm (1") of tape is peeled mechanically. Use the average peel value obtained during the removal of the next 24 to 48 mm (1" to 2") as the quick stick value. Note: A trial run should be made prior to testing so that the length of the tape is taut and forms a right angle with the panel as in Figures 3 and 4. The test fixture is constructed so that the test panel will move at the same speed as the tensile tester movable jaw when the foregoing is done, thus maintaining a 90° angle of peel. Figure 4 shows an apparatus which maintains a 90° angle of peel via bearings rather than a pulling cord.

6. REPORT

6.1 Report the quick stick value(s) to the nearest 0.1 Newtons per centimeter (or to the nearest ounces per inch) of width.



Figure 1. Quick stick specimen preparation.



Figure 2. Inserting panel and hook attachment.

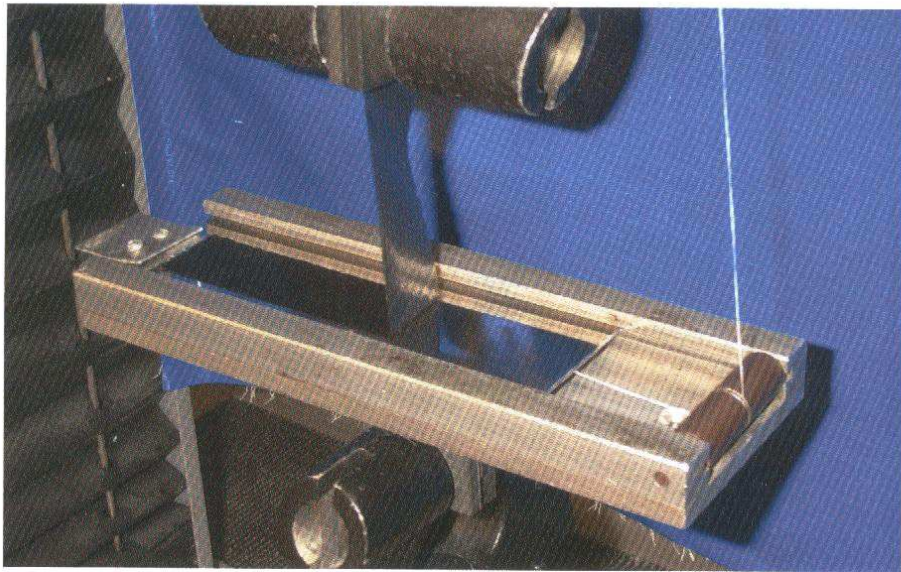


Figure 3. Test Jig with pull cord.



Figure 4. Test jig with bearings.