

**Unwind Force of
 Pressure Sensitive Tape**

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1. DEFINITION

1.1 Unwind adhesion is the force required to remove the tape from the roll under prescribed conditions.

2. SIGNIFICANCE

2.1 Unwind adhesion is a quantitative measure of the degree of ease or difficulty in unwinding a roll of tape.

3. TEST SPECIMEN

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

3.2 The test specimen shall be any 10 m (10 yard) or more roll of pressure sensitive tape - preferably 24 mm (1") wide.

4. EQUIPMENT

4.1 Tensile tester. See Appendix B.

4.2 Fixture, unwind, with a free turning mandrel for mounting roll in test machine.

5. TEST METHOD

5.1 Mount roll of tape in lower jaw of machine using free turning roller assembly. Place free end of tape in upper jaw (see Figure 1) and operate lower jaw at 300 mm/min (12"/min).

5.2 After 24 mm (1") of tape has been mechanically unwound, observe the maximum value obtained during the unwinding of the next 150 mm (6").

5.3 The tape unwound should be examined for transfer of adhesive, delamination, tearing, or other occurrence.

6. REPORT

6.1 Report the unwind adhesion value in Newtons for 24 mm (lbs./inch) to the nearest 0.02 Newton (0.05 lbs.) or other suitable unit. If other than 24 mm (1") widths are tested, 24 mm (1") values are found as the result of dividing the observed value by the specimen width.

Another method for measuring unwind force of pressure sensitive tapes is ASTM D 3811.

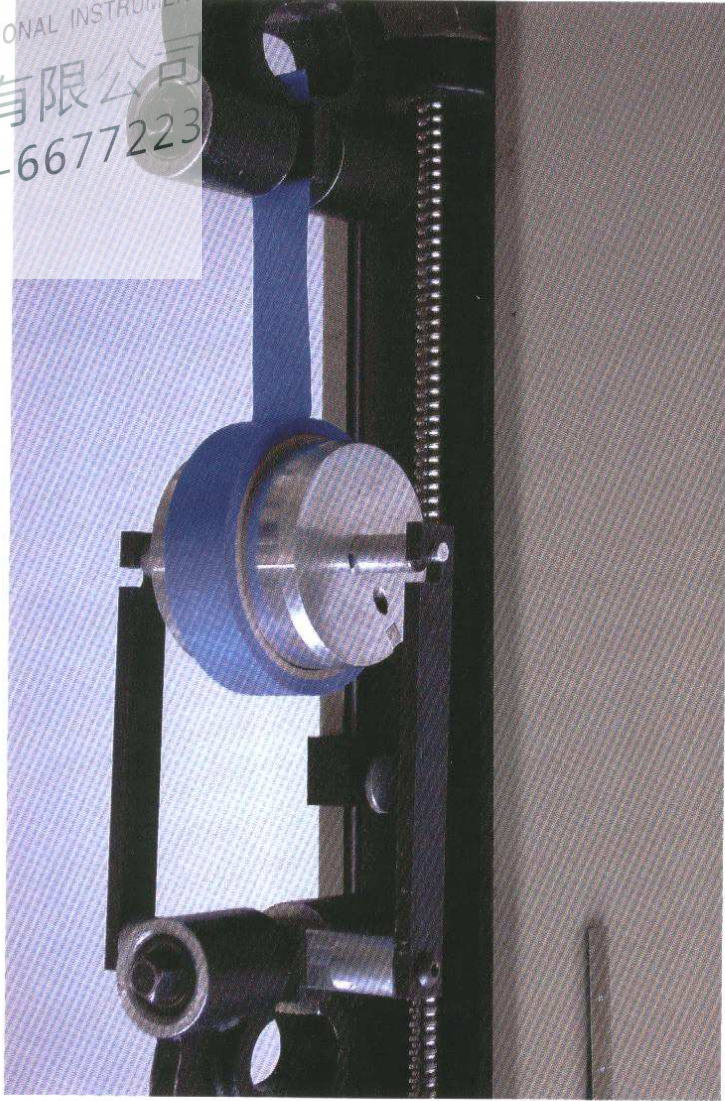


Figure 1: Setup of roll on mandrel.