Shear / Scratch Tester

Interpreting Results

A 10x Measuring Magnifier is included with each Taber® Shear / Scratch Tester. This allows you to visually measure the width of a scratch to the nearest thousandth of an inch. For more precise measurements, TABER recommends an OPTICAL MICROMETER.

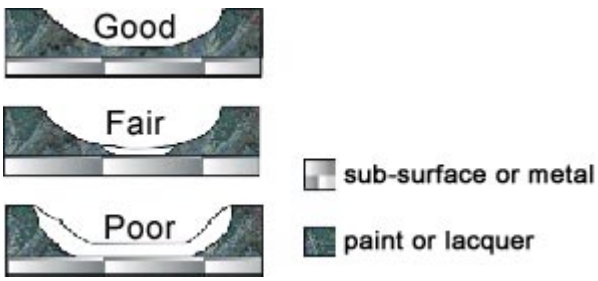
For comparable and reproducible results, it is recommended that tests be tightly controlled. Some of the influences that may affect the shear resistance of organic materials include: temperature, humidity, age of specimen material, etc.

Diamond Scratch Test
The standard criterion for scratch resistance is the minimum load required to penetrate the surface of the testing material with the diamond tool. A standard scratch width should be established for each type of material and used for comparison to determine test end point. Test results can be compared using the load required to duplicate the scratch.

Shear Tests
The standard criterion for shear resistance is the minimum load necessary to shear the surface of the testing material with the shear tool. For best results, you should perform multiple shear tests of approximately ½" length. From these, select the most uniform grooves and average the width measurements.

NOTE: An irregular or 'jumpy' cut not caused by careless test procedures, may indicate lack of uniform composition or surface irregularities.

Adhesion of Coatings
Using the TABER Shear / Scratch tester, adhesion of coatings can be rated. This is determined by recording when the tool breaks through the junction of the topcoat and the undercoat. Suggested ratings include:



CCSi, Inc., Akron, Ohio 44304 USA
Call 1.800.742.8535 (U.S.) or 330.376.3600 (outside U.S.)
Fax 330.376.8500
Email us at taber@ccsi-inc.com
Visit us at www.ccsi-inc.com