

Gardner Abrasion Tester

Coated and uncoated surfaces need to be tested for resistance to abrasion caused by a brush, sponge, or other means. Examples for testing include interior paints, wall coverings, carpets, floor tiles, polishes, bath tubs, shower stalls, and furniture.

Abrasion instruments producing repeated small-scale patterns of damage caused by attrition or erosion under controlled conditions simulate best everyday use or wear patterns. The rubbing method may also be used to test efficiencies of detergents or cleansers or to test the durability of an abrading or cleaning device such as a scouring pad.

Gardner Abrasion Tester

The Gardner Abrasion Tester helps evaluate washability and abrasion resistance of a material. The tester reciprocates an abrasive force linearly over the sample.

- Reciprocating linear motion at 37.0 ± 1 cycles per minute with a constant speed over a 10 inch travel
- Utilizes a brush, sponge, or abrasive paper to simulate real life situations that must meet several standards
- Completely enclosed electrical and mechanical components – for dry or wet testing
- Preset count-down counter with automatic shut-off and standard cycle counter provided for versatile testing
- Heavy-duty drive system allows for easy maintenance and a long-life
- Meets ASTM D 2486
- Dimensions: 100" x 36" x 60"H, Weight: 1,400 lbs

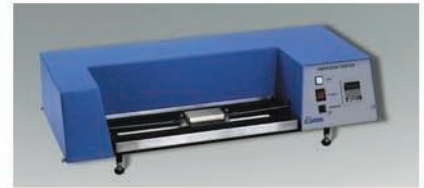
The drive mechanism consists of a gearhead motor driving the motor drive pulley gear. The rotary motion of this gear drives a smaller gear, the chain drive pulley, using a timing belt. The smaller gear drives a set of sprockets and continuous loop mechanism. The cable pair ends are attached to the virtual center of the chain, transforming the rotary motion of the chain into the reciprocating linear motion.

Standards Gardner Abrasion Tester

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|------------------------------------|---|
| ASTM | D 1792, D 2198, D 2486, D 3206, D 3450, |
| Canadian Government Spec. | 26-GP-3a, |
| Commonwealth of Pennsylvania Spec. | W-4, |
| Federal Spec. | P-C-431a, P-D-220a, P-R-201b, P-W-155, T-1279D, TT-P-18, TT-P-22, TT-P-23a, |
| | TT-P-26a, TT-P-29b, TT-P-30, TT-P-47a, TT-P-51d, TT-P-88a, TT-P-508, |
| FTMS | 141 A, Method 6141, Method 6142, |
| Military Spec. | MIL-C-3004, MIL-C-46057, MIL-E-11237, MIL-P-13340A, MIL-P-15422B, |
| Navy Spec. | 51C20C, |
| Rock Island Arsenal Spec. | RIX-268, |

Accessories Gardner Abrasion Tester

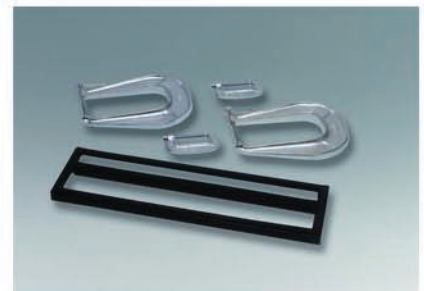
- Needed for ASTM D 2486; Holds brushes listed below; Dimensions 1.5 x 3.5 inches
- Non-perforated
- Meets ASTM D 2486
- Perforated for ANSI method Z 124.1
- Dimensions: 3 x 3.75 inches
- Needed for ASTM D 2486; Extremely uniform medium for performance of scrub tests; Simulates effect of commercial cleaning compounds; Abrasive medium contains silica for accelerating the tests
- Needed for ASTM D 3450; Nonabrasive
- For containing wet solution for testing; 1200 ml capacity; Comes with a mounting stand
- Needed for ASTM D 2486; For confining media to area of path of brush or sponge; Rubber gasket with adjustable width; Includes 4 'C' clamps; Length: 17.1 inches
- Similar to Lilly Frame; Fixed path width for use with brushes only; Includes 4 'C' clamps
- Needed for ASTM D 2486; For attaching to middle of glass test plate under scrub panel; Dimensions: 6.5' x 0.5' x 10 mils
- One pair of cables



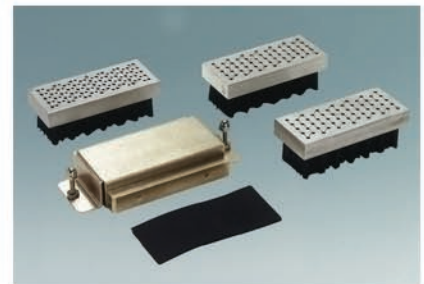
Abrasion Tester with brush holder and brush



Abrasion interior paint, scrub test panels are available



Lilly Frame and 4 C-clamps



Gardner Abrasion Tester

Technical Specifications Gardner Abrasion Tester

Needed for ASTM D 2486; Dimensions: 6.5 in x 17 in x 10 mils Pack of 100

Needed for ASTM D 2486; Dimensions: 6.5 x 17.9 x 0.25 (16 x 45 x 0.6 cm)

Meets MIL-E-11237 specifications; For testing materials with grades of sandpaper for resistance; Includes semi-hard rubber mat and 10 yards each of 1/0 and 3/0 emory cloth, 2 inches wide

Total weight of sandpaper attachment and weight is 4.5 lb (2kg)

Needed for ASTM D 2486; Two edged applicator for paint to plastic scrub panels; One gap of 5.25 in width and 7 mils clearance and one gap of 5.5 in width and 10 mils clearance

ASTM method D 2486

Standard Test Method for Scrub Resistance of Wall Paints

Interior wall paints often become soiled especially near doorways, windows, and in work and play areas. This test method covers determination of the relative resistance of different wall paints to erosion when repeatedly scrubbed to remove the stains encountered during the life of the paint.

Scrub Resistance of Interior Latex Flat Wall Paints

You must purchase the following items:

- PB-8100 / PB-8101 Abrasion Tester
- PB-8110 Brush Holder and Mat
- PB-8112 Nylon Brush
- PB-6978 Lilly Frame
- PB-6979 Brass Shim
- PB-6980 Polished Glass Plate
- PB-5015/ PB-5016 Scrub Panels
- PB-8129 Scrub Medium
- PA-2230 Dow Latex Film Applicators

Procedure

The test paint is applied to a black plastic panel. After curing, the coated panel is placed over a shim and held in place on a glass plate on the abrasion tester model PB-8100. It is then scrubbed with a nylon bristle brush and an abrasive scrub medium until failure occurs over the shim.

