

# Leneta Scrub Test Panels

## Form P121-10N

Black Plastic-Vinyl Chloride/Acetate Copolymer

Smooth Matte Surface - Plasticizer Free

Thickness: 10 mils (0.25 mm) - Size: 6-1/2 x 17 in (165 x 432 mm)

Used in ASTM D 2486, ASTM D 4213, ISO 11918 and Other Scrub Test Methods



Form P121-10N

In a typical scrub test, the coating is applied to the Leneta Scrub Test Panel at a specified film thickness, allowed to dry, then subjected to scrubbing with a straight-line scrub tester. In ASTM D 2486, a 10 mil shim is inserted under the panel to accelerate failure and thereby reduce testing time. The scrub resistance is the number of scrub cycles required to remove the coating to a specified end point.

Alternatively, the loss in weight is determined after a specified number of scrub cycles as a measure of scrub resistance, with calculation of equivalent loss in film thickness.



Fig. 1 Typical Failure Using Shim per D2486, Method A.

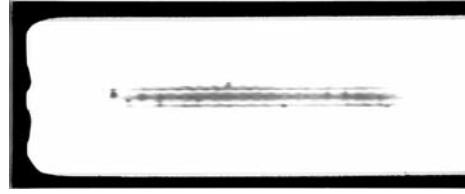


Fig. 2 Typical Failure Without Shim

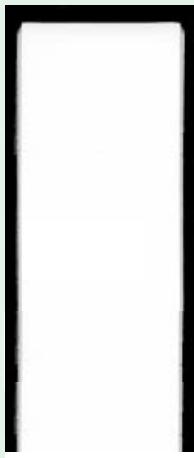
The above photographs show actual tests of latex flat paints. Note that the films have worn down to a feather edge, with no sign of adhesion failure

ALSO AVAILABLE: WHITE SCRUB TEST PANELS - FORM P122-10N

Used with dark colored paints for contrast. Same physical properties as Form P121-10N.

**PACKAGING: 100 per box, 5 boxes per case.**

## Leneta Calibration Scrub Test Panels



Form P121-A,C,D

Form P121-A

Poor Scrub Resistance

\* 80 cycles-to-failure

Form P121-C

Good Scrub Resistance

\* 400 cycles-to-failure

Form P121-D

Very Good Scrub Resistance

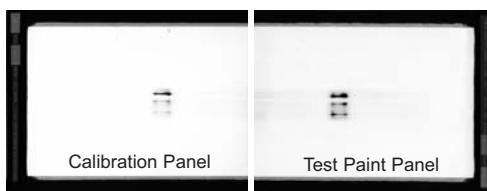
\* 900 cycles-to-failure

\* Typical Values per ASTM D2486, Method A

These are standard panels prepared by applying white emulsion paints on black scrub test panels. The films are indefinitely stable and the panels of each type essentially identical. They are used as controls in the measurement of scrub resistance, to obtain *Calibration Ratings* that normalize the wide variations often encountered for undefined reasons, among laboratories using the same scrub method. The *Calibration Rating* is the performance of the test paint panel expressed as a percentage relative to that of the selected Calibration Panel. Thus:

$$\% \text{ Calibration Rating} = \frac{\text{Test Panel Cycles-to Failure}}{\text{Calibration Panel Cycles-to-Failure}} \times 100 \text{ **}$$

\*\* The letter indicating the calibration panel type is appended to the calibration rating, e.g. 125A, 65C, 95D etc.



The figure to the left illustrates simultaneous side-by-side scrubbing of half-panels to maximize correlation, analogous to ASTM D 2486, Method B.

NOTE: See also ASTM D 4213 "Weight Loss Method" whereby:

$$\text{Calibration Rating} = \frac{\text{Calibration Panel Weight Loss}}{\text{Test Panel Weight Loss}} \times 100$$

**PACKAGING: 3 per box, 4 boxes per case.**