

GLOSS METER OPERATING PROCEDURE

This gloss meter complies with ASTM D 523.85 and ASTM E97.

Identification of Terms

Gloss meter: An instrument used to measure the amount of light reflected in a mirror like fashion. 60E gloss meter is common for all-purpose measurements.

Shiny Appearance: This is when a beam of light is reflected from a surface in basically one direction (i.e.: mirror on highly polished surface).

Flat or Matte Appearance: This is when a beam of light is reflected from a surface in all directions (the light is diffused/scattered).

Gloss: Amount of light reflected in a mirror like fashion relative to the amount of light that would be reflected, under identical circumstances, by a highly polished plane surface of black glass having a refractive index of 1.567 (this refractive index is equivalent to a gloss value of 100).

Calibration: Adjusting the gloss value reading of the gloss meter to a known standard (see gloss defined).

Procedure

1. Inspect the under side (bottom surface) of the instrument to be sure that it is clean and free of scratches and rough particles. A rough surface will damage the test piece and/or calibration standard.
2. Inspect the lenses and their channels removing any dust or stray material. A small camel's hair brush should be used to clean the lenses and surrounding area.
3. Verify calibration.
 - a) Wipe the calibration piece (polished black glass) clean using a soft lint free cloth. DO NOT SCRATCH OR MAR THE SURFACE! Refer to Calibration Standard Cleaning Care for more details.
 - b) Place the gloss meter on the standard.
 - c) Press and hold the Read button until the display reading stabilizes.
 - d) Verify the reading.
 - i) Standard is 93.2 ± 0.3 . Acceptable range 92.9 - 93.5 gloss units.
 - ii) With the read button depressed adjust the calibration to read within the required parameters.
 - e) Take 2nd reading to verify.

Note: Once the gloss meter has been calibrated be careful not to adjust the calibrating dial as this will affect the calibration.

4. Perform required gloss measurements:
 - a) Place the gloss meter on the test specimen. Specimen must be flat and smooth in order for proper readings to take place.
 - b) Periodically confirm the calibration of the meter during the testing desired.

Maintenance

1. Battery charging
 - a) Battery is to be recharged only after the "LO BAT" symbol is displayed. This will ensure maximum battery pack life.
 - b) The unit will be charged in approximately 16 hours.
2. Lamp changing
Refer to the manual for details & phone Paul N. Gardner for specific instructions.
3. Calibration Standard cleaning & care.
 - a) Use only dry lint - free cloth to clean the standard.
 - b) Do not use detergents or any cleaning agents that may leave a residue.
 - c) Do not scratch or mar the surface of the standard!!