

## ASTM Lightfastness Testing of Pastels and Printed Digital Media

### ABSTRACT

ASTM D01.57 members have been conducting lightfastness tests since 1978, and our first standard was published in 1983. The major traditional artist's paints have by now been covered by ASTM D4303; D01.57 has embarked in new directions by developing methods for testing other artist's materials and by initiating a study, funded by the Samuel H. Kress Foundation, to correlate ASTM test method results with those of the ISO Blue Wool Textile Fading Cards.

The traditional artist's paints include oils, transparent watercolors, opaque watercolors ("gouache"), casein, and pastels. Many artists and conservators use colored pencils. Color-printed digital media, the latest contemporary iteration of what is essentially a photography-based artistic expression, have become popular art materials.

Lightfastness testing of artist's materials is based on a premise distinctly different from methods used for other colored materials: Artists expect that their art is "permanent," that is, that the artwork will endure unchanged without significant deterioration. At best, this is an unrealistic expectation, given the uncontrolled environments to which most art is exposed. However, if exposure and care conditions are controlled—as in a museum environment, for instance—then it is possible to make art in which the coloring material, at least, will last for a very long time. See an example of a Fayum-era encaustic painting.

The new challenges to D01.57's methods include making test samples that are opaque and products that have complex and non-standardized components. The colored pencil problem has been solved by the development of ASTM D6901. A method for pastels is underway, and a

method for the printed digital media has been initiated. The ASTM process will ensure success.

### ACKNOWLEDGMENTS

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