

Applications Note

$\Delta = 2t + \frac{\lambda}{2}$ (must equal a whole number of λ for a bright fringe or

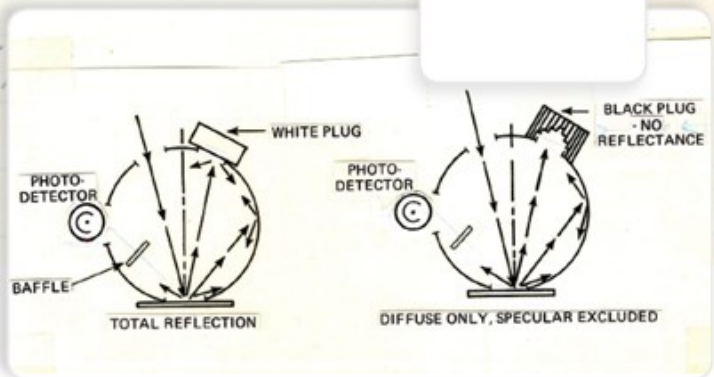
$$n\lambda = 2t + \frac{\lambda}{2}$$

$$t = \frac{n\lambda - \frac{\lambda}{2}}{2} = \frac{\lambda}{2} \left(n - \frac{1}{2} \right)$$

substituting

$$D^2 = 2s \left[\frac{\lambda}{2} \left(n - \frac{1}{2} \right) \right]$$

AN 1128



ADMI Scale

Abstract

ADMI stands for the American Dye Manufacturer's Institute. This scale was developed for the measurement of waste water containing dyestuffs and textile effluents. This scale may be used on clear liquids of any color.

ADMI is a single-number index with units based on the total color difference of APHA solutions from distilled water. Distilled water has a value of zero in ADMI units as in APHA units. An ADMI value of 500 is assigned to a solution having a total color difference from distilled water equal to the total color difference from distilled water of the APHA stock solution, which has an APHA value of 500.

The HunterLab application of this scale is bluish-colored liquids. Since there is no blue index on which to base the values, a total color difference, or delta E, value is used to calculate ADMI instead. (Recall that APHA, a yellowness index, is based on YI E313 yellowness index.) The AnLab delta E (ANdE) and delta C (ANdC) were determined to provide the best correlation and are used in EasyMatch QC. These measurements are made in transmittance using a 10-, 20-, or 50-mm sample cell, and the calculation is adjusted based on the cell's path length.

Conditions for Measurement

Instrumental: UltraScan PRO, UltraScan VIS with EasyMatch QC and VISTA

Illuminant: C

Standard Observer Function: 2-degree

Transmittance and/or Reflectance: Transmittance only.

Typical Applications

This index is used mainly in the textile industry to measure the color of waste water.

About HunterLab

HunterLab is the technology leader in color measurement solutions, providing instruments, software, knowledge and service to a wide variety of industries.

With over 5 decades of experience in more than 65 countries, HunterLab applies our leading edge technology to your products helping you measure and communicate color simply and effectively.

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