

KES

**Testing Method for Yellowness
Index of Dried Film of Paint,
Varnish, Lacquer and
Related Materials**

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1. Scope of Application

This standard shall specify the test method for yellowness index paint film.

2. Definition

2.1 Yellowness Index

Yellowness Index (N) is calculated from KS A 0061 (Expression Method for XYZ Color Index and X10 Y10 Z10 Color Index).

$$N = \frac{1.250X - 1.038Z}{Y}$$

Or, N can be calculated by other equation. Measure ABG value (1) by Hunter Type General Purpose Defuse Reflection Measuring Device. N can be calculated from ABG values in the following equation.

$$N = \frac{A - B}{G}$$

Note (1) ABG value (Defuse expansion reflection rate) is measured from using filters of below from incident light (Light source) and relation to XYZ is also shown below.

$$A = 1.259X - 0.191 \text{ (Amber filter)}$$

$$B = 0.847Z \text{ (Blue filter)}$$

$$G = Y \text{ (Green filter)}$$

2.2 Yellow Index Difference

Yellow index difference (DN) is a measured value of N before and after the test.

3. Method for Measurement

3.1 Production of Test Tube: Test tube is produced by given product standard.

3.2 Exposure and treatment of Test Tube: exposure and treat by given standard

3.3 Measure the values of XYZ by KES TL 257 (Method for Color measurement of paint).

ABG value is calculated the same way.

3.4 Calculation