

ASC Z97 ANSI ACCREDITED STANDARDS COMMITTEE

Safety Requirements for Architectural Glazing Materials

Chairman: K. Olah, 2300 Harmon Road, Auburn Hills, MI 48326, Phone: 248-340-2141; E-mail: KOLAH@Guardian.com

Secretary: J.C. Schimmelpenningh, 730 Worcester Street, Springfield, MA 01151, Phone: 413-730-3413; E-mail: JCSCCHI@Solutia.com

Technical Interpretation TI-10.06.001

Document: **ANSI Z97.1-2009**

Date: June 23, 2010

Referenced Section(s): Section 5.4.2.1.2

Interpretation Request: (What needs clarification/modification/removal?)

The standard does not specify whether the 5% change is relative or absolute. A relative 5% change would be calculated from the laminate's measured value versus a 5% 'absolute' change, which is 5% on the measurement scale (i.e. 0 – 100%). A clarification in the 5% change is necessary for consistent interpretation.

Interpretation:

The requirement for 5% change was imposed incorrectly on the properties of Haze and YI. The intention of the committee was to allow a change of 5 actual units for each parameter meaning 5 percentage units for visible light transmittance, 0.5 units for YI, 0.5 units for Haze and a Delta E of 5 units.

Section 5.4.2.1.2 would then read as follows:

- (1) **Visible Light Transmittance** change not greater than 5 percentage units (e.g.: 91% control \pm 5% = 96% or 86%) as measured according to ASTM D1003; Standard Test Method for Haze and Luminous Transmittance of Transparent Plastics.
- (2) **Yellowness Index** (for clear products only) change not greater than 0.5 YI units (e.g.: 0.70 YI control \pm 0.5 = 1.20 or 0.20) as measured according to ASTM E313; Standard Practice for Calculating Yellowness and Whiteness Indices from Instrumentally Measured Color Coordinates.
- (3) **Haze** change not greater than 0.5 percentage units (e.g.: 0.70 control \pm 1.20 or 0.20) as measured according to ASTM D1003; Standard Test Method for Haze and Luminous Transmittance of Transparent Plastics.
- (4) **Delta E** less than or equal to 5 units as measured according to ASTM E308; Practice for Computing the Colors of Objects by Using the CIE System.

Rationale:

Section 5.1.4.2.1.2 was intended to allow a five (5) significant units change for each variable and not a percentage of the measured value. During the significant re-write of this section the application of the 5% as written for YI and Haze were overlooked.

An ERRATA for ANSI Z97.1-2009 has been issued regarding this item.

Keywords:

Delta E, Haze, Visible Light Transmittance, Weathering, YI

Secretariat – Glazing Industry Standards Council, 2945 SW Wanamaker Drive, Suite A, Topeka Kansas 66611-5321

ASC Z97 ANSI ACCREDITED STANDARDS COMMITTEE

Safety Requirements for Architectural Glazing Materials

Chairman: K. Olah, 2300 Harmon Road, Auburn Hills, MI 48326, Phone: 248-340-2141; E-mail: KOLAH@Guardian.com

Secretary: J.C. Schimmelpenningh, 730 Worcester Street, Springfield, MA 01151, Phone: 413-730-3413; E-mail: JCSCI@Solutia.com

Date of rendered interpretation: 06/23/10

Secretariat – Glazing Industry Standards Council, 2945 SW Wanamaker Drive, Suite A, Topeka Kansas 66611-5321