

UV INTENSITY LABELS™

Low-cost method for measuring UV, EB and Gamma Ray dosage; photochromatic labels change color based on energy value received

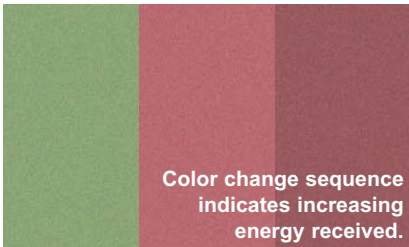


This photochromic intensity indicator is a low cost, simple in-house method of monitoring ultraviolet radiation electron beam gamma ray dosage. When exposed to UV light or electron beam, the green labels undergo a proportional color change to purple which is directly related to the energy value received.

The color deviation should be measured with a densitometer or by a relative check of comparing the colors to test labels created to known operating standards. Color analysis of the label will establish a reference for quality control to determine lamp failure or processing inconsistency. The adhesive backed label is placed on a sample product or substrate and processed to proper cure rate.

If used on a regular basis the labels can contribute to equipment and process history. They can also detect equipment problems at an early enough stage to prevent lengthy shutdowns. Daily tests can easily indicate a step by step calibration for an accurate reference within each batch. The use of a digital tachometer can help ensure repeatable results.

Suggested Use: **UV Intensity Labels™** are especially useful in systems where other instruments are not practical such as 3-D curing, web coating, container printing, medical sterilization, etc.



PART NUMBER	DESCRIPTION
N010-001	UV INTENSITY LABELS™ (1000 LABELS)

Using UV/EB Intensity Labels to Create a Calibration Standard

CON-TROL-CURE recommends creating an in-plant Calibration Standard to establish a quick reference radiation dosage analysis chart. The first step is to establish the optimum dose required to produce your particular product.

Place one adhesive backed CON-TROL-CURE® UV Intensity Label™ on a sample product or substrate and process according to those production parameters which would produce desired physical properties. You must test the product to ensure it meets the physical standards you have established. If the standards are met, the resulting label will represent the dosage required for obtaining a complete and proper cure and can be used as the test standard to aid quality control of similar production jobs.

Deviations from this label's color when processing alike jobs will indicate a variable shift, such as lamp deterioration. Additional labels can be processed individually in incremental steps until product failure occurs. For example, to create a Calibration Standard of 15 labels, each label can be irradiated 1/15 more than the previous label, or a combination of both depending on the particular range you require for reference.

These samples of color variation are able to be used as a scale for calibration and can be used as a relative standard in relationship to a particular batch of CON-TROL-CURE® UV Intensity Labels™, since the degree of accuracy is maintained within each lot. Evaluation of UV equipment, lamps or lamp life is accurate when performed within the same lot of labels and

when using the Calibration Standard as a reference.

CAUTION: The Calibration Standard should be stored with a cover as well as a clear plastic CON-TROL-CURE® UV Filter Sheet™ (#F007-005) to prevent exposure to ambient UV light from windows or fluorescent room fixtures. To ensure long term stability, the cover should remain on when not in use and clear CON-TROL-CURE® UV Filter Sheets™ should be used when viewing comparisons of CON-TROL-CURE® UV Intensity Label™ samples.

24-HOUR PRODUCT SERVICES

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