



TECHNICAL C&A INFORMATION

UV Coating - Gloss Definitions v1.1

UV coating products can be supplied in a variety of gloss-levels, ranging in visual appearance from a brilliantly reflective shine to a muted flat-opaque tone. While visually interpreting the gloss-level of a UV coating product can provide a general determination of the product type, the subjectivity can cause confusion in communication as each individual's ideas and relative nomenclature can differ as to what constitutes a particular gloss-level of an applied UV coating film.

The broad range of achievable gloss-levels and variety of UV coating products that are available in the graphic arts market necessitates that the entire gloss range is broken down into several gloss categories/definitions based on the achievable *measurable* gloss-level. Using industry-standard gloss measurement equipment and procedures allows for the clear and objective interpretation and communication of a desired visual appearance of printed products and ensures that repeatability and predicably exists in the printing process. This document out-lines the measurable gloss-level definitions and ranges for use with Coatings & Adhesive Corporation's UV coating products.

UV Coating Gloss Definitions

Gloss Measurement	Gloss measurement for UV coating products supplied to the graphic arts industry is conducted using a gloss meter that measures the specular reflectance of the coating film at a 60° reference angle; the meter must be calibrated to the supplied calibration standard prior to use. The results are expressed in 'gloss-units' ranging from '0 - 100', with '0' representing the lowest possible measurable gloss-level and '100' representing the highest possible measurable gloss-level.
Gloss Variables	<p>The following variables will directly impact the visual/measurable gloss results of the applied UV coating film and can cause the final measured gloss result to differ from the intended target/range:</p> <ul style="list-style-type: none"> - Film thickness/coat-weight - Film lay/smoothness - Film condition for consistency/homogeneity - Degree of film-cure - Substrate type/smoothness/hold-out - Ink type and condition/density/saturation of beneath ink layers; 'gloss-back' - Gloss measurement direction; parallel vs perpendicular to grain-direction of substrate <p>In the event that a specific gloss target is required, prior testing of the recommended UV coating product should be conducted using all conditions of the job inclusive of coat-weight, inks and substrate.</p>
UV Coating Gloss Definitions and Range	<p>Below is a list of gloss-level definitions and gloss-unit ranges for use with UV coating products:</p> <ul style="list-style-type: none"> - <u>Super Matte</u>: <5 - <u>Matte/Dull</u>: 5 - 20 - <u>Matte/Smooth</u>: 20 - 25 - <u>Matte/Satin</u>: 25 - 35 - <u>Satin</u>: 35 - 50 - <u>AQ-Gloss Mimic</u>: 50 - 60 - <u>Semi-Gloss</u>: 60 - 70 - <u>Gloss</u>: 70 - 90 - <u>Super Gloss</u>: >90