OnColor™ Match

Product Technical Data Sheet

Windows Graphical User Interface

Intuitive Navigation	You'll find all of the options easily and quickly following basic Windows program flow. Use keyboard shortcuts, hot spots, and tool tips to speed through the program.
4 Quadrant User Screen	The main screen of OnColor Match lets you chose what data to display and where; design and save your own personal desktop or customize several for different customers or different test procedures
8 Report Screens	Display your color data in various report formats. Choose from Match Prediction, Batch Correction, Colorant Analysis, Color Plot, Data Table, Spectral Plot, Statistics, Tolerances, or Multi Quadrant screen. All are customizable for the job at hand
Hot Spots, Tool Tips, Keyboard Shortcuts	These tools combine everything you want to do in a single keystroke or click of the mouse. Cursor over your trials to display the name. Right click to select, edit, delete, or hide it.

Additional Report Screens

6 QC Report Screens, plus …	Three additional report screens are included for matching, correction, and colorant data analysis. OnColor Match includes ALL of the reports, features, and functionality of OnColor QC. No need for a separate QC program or for a file translator. It's all there!!! With 100% data compatibility.
Match Prediction	Displays the output of the match prediction routines. Choose from many application models listed below and customize the display to your units and parameters. Display the "N" Best Matches, along with cost, metamerism, and VOC's
Batch Correction	Displays the "add" to be made to a batch. Batch correction routine automatically corrects the batch to match the color standard. Units and output are customized to your production needs and processes. Use optimize and manual control features to minimize the add. Or Correct to an Offset DE.
Colorant Analysis	Reports data from the colorant data file in tabular and graphical form; used to characterize pigments, dyes, and colorants for use by the matching and correction routines; create rules for what colorants do not work well in combination; sophisticated analysis and plots of K and S data to ensure the most accurate data; Gold license only

Color Matching

Methods	Choose from combinatorial, search, search and correct, user specified combination, or color synthesis using operator input amounts
Colorant Groups	Create and choose colorant groups for FDA approved, high light fastness, high heat resistance, etc. and use for combinatorial matching
Colorant Rules	Apply rules for which colorants cannot be used together. For example, do not use red and green in the same match
Output	Customize the output to your particular application. Choose from any weight and volume units, dry pigment vs. dispersion, cost, VOC's, predicted opacity, gloss factors; print labels of the formula for your samples or drawdowns
Sort	Matches are sorted by Best Match by weighted DE, metamerism, cost, or VOC's
Formula Storage	Store a new match into the database of Standards for future recall or searching; update the formula as it is corrected in the matching process
Gloss compensation	Adjusts the match to compensate for gloss differences between standard and end product
Waste work-off	Choose from an inventory of work-off materials and specify either the amount or maximum % to be used in the formula
Match Criteria	Define the criteria for an acceptable by setting the DE limits for 3 illuminants. Display all matches within limits or show only the "n" best
Opacity and Loading	Specify a contrast ratio and film thickness and let the software compute the optimum pigment loading; or specify the film thickness and DE over white and black; DE over white and black

Batch Correction

Automatic Add	Automatically computes what and how much to add to the batch to bring it "on color". Choose between user input batch amounts or computer predicted batch amounts;
Manual Add	Takes the user's suggestion on how to bring the batch "on color" either with current colorants or by adding a new colorant. Input your idea for the add, or let OnColor "optimize" the add on a colorant. Watch the effects on the curve and color coordinates as the computer simulates your add!
Minimize Add	Choose a maximum allowable DE and let the software minimize the add needed to get to this DE. Useful for reducing large adds of white.
Offset DE	The user can offset the standard to any direction in color space and ask the software to correct to the new coordinates

Applications

Applications	Math models for coatings, plastics, textiles, trade sales paint, inks, ceramics, paper, continuous dyeing and transparent solids or liquids via transmission
Coatings, Stucco and other Building Products	Set up parameters for industrial coatings applications, using inter-mix systems, dispersions, dry pigment, or any combination. Choose weight, volume or both in a choice of virtually any possible units of weight and volume. Optimized loading routines compute the match to a specified contrast ratio and film thickness.
Plastics	Customizable to formulate color concentrates, master batches, final product or powder coatings; Handles multiple scattering resins
Trade Sales Paint	Follows can fill rules and automatically selects the best base for the match from a product line of bases; selectable batch sizes (such as quart, gallon, liter, etc.) and shot sizes (e.g. 1/48, 1/32) in whole, half or decimal shots
Textiles, Ceramics	Gives dye formulas to match a standard using a dye K/S file; handles alternate substrates
Printing Inks	For screen printing with opaque inks, printing with transparent inks, or pad printing of dyes on textiles
Transparent (Beer's law)	Used for transparent plastics, liquids, dye solutions, and printing on mylar substrates

Database of Standards and Formula File

Universal format	ODBC compatible, MS Access file format allows you to use your standards and formula files for other purposes; add fields, generate production reports, pass data through the data pipeline ; supports SQL databases for global sharing of color standards
Shade library	Stores color data for all your established color standards along with individual tolerances for each
Shade search	Search the Database of Standards to find the closest existing shade to a sample; user specified search criteria for number of matches and weighted search; use filters to narrow the search
Formula storage	Attach one or many formulas to a given color standard; OnColor handles multiple product lines for the same color standard
Search & Correct	Search the library to find the closest shade and if not in desired limits, adjust the proven formula to the new target color
Batch History	Save the color hit along with its formula and add for each trial in a batch; retrieve different batches to analyze the starting formulas or the final approved color

Colorant Characterization and Analysis (Match Gold only)

Minimum samples	No need for complex and numerous sample preparations with OnColor. Be up and running easily and quickly with our two-step procedure. No need for a wizard!
Advanced Multi-Letdown Model	Choice of application-specific characterization techniques. Calculation of optical constants: K, S, K/S, or A depending on math model chosen; characterizes colorants, bases, resins, substrates, additives, and work-off or recycle materials
Gloss correction	Automatic calculation of best fit Saunderson coefficients for first surface correction
Colorant Rules	Create and edit colorant rules table. Allows the user to specify colorant combinations which don't work well together and prevents them from being used together in a match
Analysis	Automatic error-analysis on back-prediction to calibration samples; Multiple displays and plots for additional build analysis: K/S vs. λ, K vs. λ, S vs. λ, K/S vs. conc., K vs. conc., S vs. conc., normalized K/S vs. conc.
Editing	Edit cost, density, names, VOC's, colorant rules, and other physical parameters

OnColor Suite of Color Software

QC	Available in QC "Lite" or "Premium". The Lite version includes all basic quality control features. The full version adds more graphical reports, Database of Standards, Instrument Performance, security, macros, and statistics
Multi-Angle QC	Adds the drivers for multi-angle spectrophotometers along with display options for up to 6 angles of data; color travel plot of multi-angle L*a*b* results; Sparkle and Graininess
Match Gold	Full version of the formulation and correction program includes modules for match prediction, formula storage and retrieval, batch correction, and colorant database loading and maintenance. Designed to be the complete color lab package.
Match Silver	Designed to be the satellite system. Uses a colorant database generated by the Gold package. Includes all modules except the colorant analysis module.
Other Licenses	Also available are non-measuring work licenses for manager's use in the office for report generation and data manipulation.

Minimum system requirements: PC running Windows XP, Vista, 7 or 8; USB port for hardlock; communications port for instrument connection; color printer and/or Dymo Label Writer desirable

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