

Largo
innova

LargoMatch 2000 *Plastic*



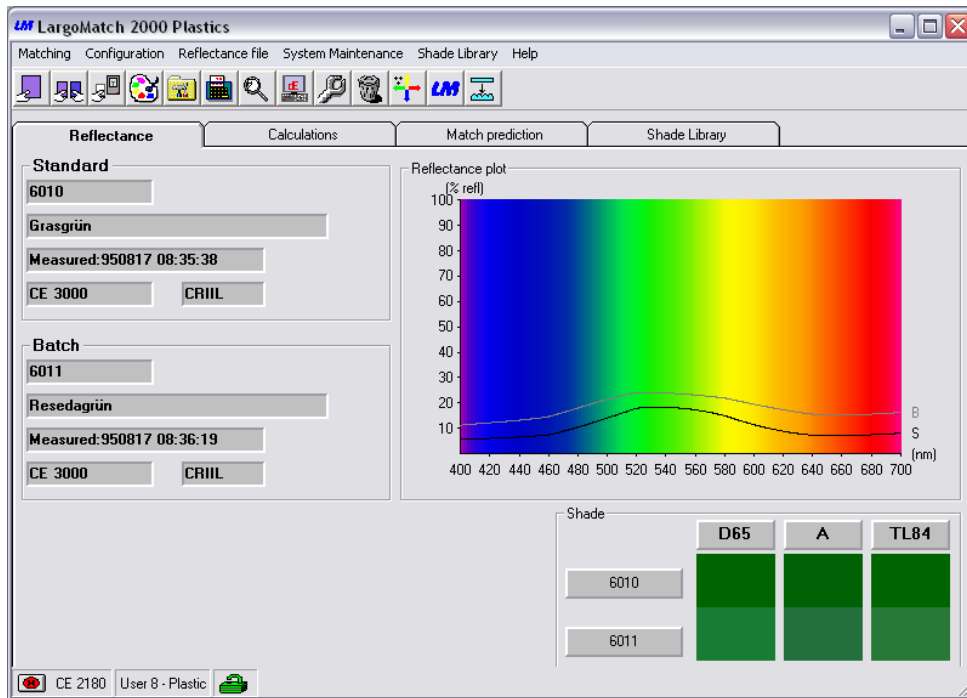
LargoMatch 2000

www.largoinnova.com



when colour counts

LargoMatch 2000 Plastic is a colour match prediction system with features for quality control, recipe calculation, batch correction, recipe management, analyze etc for laboratory and production. The software has a built in tool for preparation of colour calibration databases as well as feature for transfer of recipe to dosing system.



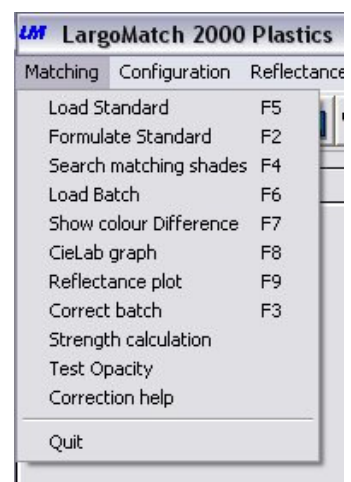
For easy navigation in the software the screen has 4 main sections:

- Reflectance**, shows the reflectance curves for Standard and Batch
- Calculations**, shows chosen calculation e.g. colour difference in CIELab
- Match Predictions**, formula/recipes calculated are shown
- Shade Library**, saved data on recipes or shades/standards are shown

Just click on each tab to view information and data.

On top row you will find scroll down lists for Matching, Configuration, Reflectance file, System Maintenance, Shade Library and Help. In each list you have access to the functions by click on selected row or by the functions key e.g. F2 for matching.

The most frequently used functions you reach by the short cuts or in the tool bar. You can easily create your own icons with sub-functions and add to the toolbar giving quick access and minimize training when several users in system.



Match Prediction

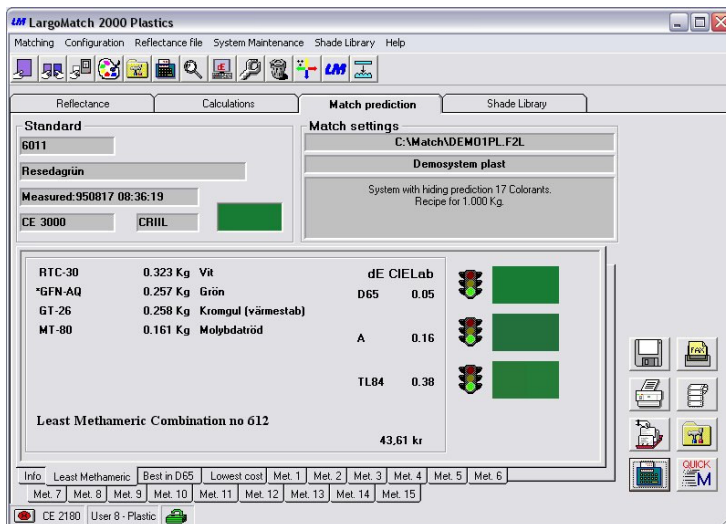
Each tab in LargoMatch 2000 Plastic is designed for easy access of information.

For match prediction the standard used for recipe is shown with name, number, date of measurement, type of spectrophotometer, its settings and the shade.

The Match settings give you an overview of which and kind of database used, how many colorants, Contrast Ratio etc within it.

To improve the utilization of pigments and colorants it is possible to pre-select, lock, lock out and group them for availability when predict recipes.

The recipe it self is present in the left part with the number/code, amount and name of the component. On the right hand you find the colour difference in selected colour difference equation and illuminant. The traffic lights symbolise a good or poor match. To the right the shade is visualised in each light source for standard and recipe.



Result flaps

Info overview with number of combinations tested and the results
 Least Methametric the least metameric recipe
 Best in XXX best recipe in illuminant 1, default setting D65
 Lowest cost best recipe considering to cost
 Met 115 the best following recipes depending on chosen setting
 "Recipe after match" in Match tolerances

Icons

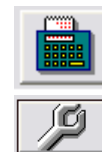
When a match prediction is done, icons appear on right side of screen with icons for choices you have for the calculated recipe. Depending on settings in set up you can save the created recipe in selected shade library, send it as a fax, print a list or label. Test any of the combinations inside the set tolerance, Go to Set up for changing matching setting, Match loaded standard with selected database or Make a QuickMatch (useful when database has a large numbers of colorants e.g. >25, to find out if you can match the shade).



Batch correction

If a correction on predicted recipe is needed you may use Production Correction which calculates additions to an existing batch (common when deviations have been caused by the production method or temporary raw material deviations) or Laboratory Correction where a new recipe is calculated based on the outcome of the loaded batch.

It is possible to create own macros for different functions in the toolbar. Very useful default macros are the calculator which brings you step by step thru the match prediction (Load standard, Select database, Calculate recipe) and the adjustable wrench for correction (Load standard, Load batch, Correct).



LargoMatch 2000 Plastic use different file format depending on what kind of information you want to save.

Reflectance File

A data file where measurement data can be stored, together with a number and a name to identify the sample, pigment concentrations (for database samples), sample contrast ratio (if measured) and sample gloss information (if measured). The current settings of the spectrophotometer being used, the spectrophotometer model, and the date and time for the measurement are saved as well.

Shade library

The shade library file can be created in two different formats, **.LRF** for measurement data only, tolerance on dE, production recipes, waste paint information, production batch statistics or **.LRT** with extended sample information e.g. individual tolerances on dL, da, db, dc and dh.

Database File

The file (.F2L) store data used for match prediction (recipe calculation) and batch corrections. It contains information about product and pigment/colorant you are using which is needed for recipe calculations.

The storage capacity is up to 255 coloured and 15 white pigments per **polymer quality**. You can define named pigment groups, which can be useful when you are working with large databases, with many pigments that have different qualities (for example temperature sensitivity, UV-resistance etc.).



Database Types

In LargoMatch 2000 Plastic you can use two different types of databases:

Standard database

A database for production, where you want to manually control the addition of the polymer, or let values for maximum allowed colorant addition decide on polymer addition. It is also possible to preset the white concentration for predicted recipes. With this type of database you can calculate recipes in any form and perform corrections.

Database with hiding prediction

This type is used for products where you are working with a polymer and want the system to calculate polymer addition, based on hiding.

More features in LargoMatch 2000 Plastic:

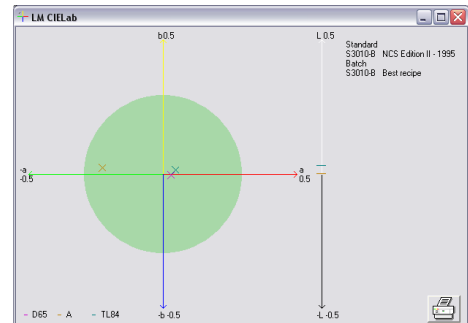
Colour difference CIELab, CIELch, CIE94, ANLAB Lab, ANLAB Lch, HUNTERLAB Lab, HUNTERLAB Lch, CIE Luv, JPC 79, FMC2, DIN99, CMC (1:1), CMC (2:1) with individual setting of L:c

Index CIE Whiteness index, CIE Yellowness Index, CIE Tint

Illuminants D65, C, A, TL84, CWF, WWF, NFL, TL83, CR84

Observer 2° and 10° standard

Plot CIELab graph, reflectance curves, K/S, Log K/S



Strength calculation/adjustment for control of colour strength at XYZ or Absorption max and, if needed, calculate polymer or pigment additions for strength correction

Test opacity showing Contrast ratio (C.R.) calculated on the Y-value or, if system is configured for measuring databases, the C.R. calculated at the wavelength with least hiding

Texture correction when comparing plain sample with textured

Search matching shades, measured or entered values for XYZ, CIE Lab or CIE Lch

Keyboard input of reflectance values or recipes

Synthesise sample creates shade from selected database by entering a recipe

Auto-Correction/Correction Help calculate correction suggestions for production batches where you have unknown pigments or to modify waste paint batches

FileMatching feature used to match an interval or all samples saved in a reflectance file according to selected database and matching conditions. The recipes will automatically be saved in dedicated shade library.

Analyse tool for control of shade libraries, plot trends against standards by graph or dE etc

Options

NCS calculation

for exact NCS code and closest NCS standard on loaded standard (special licence, demands correlation of spectrophotometer in use)

Create NCS colour calculates and create a recipe for any NCS colour code without a physical sample.

