

# Installation and using of KMEN 4.03.xx



## Introduction

This software is compatible with the Windows versions 32bit and 64bit till Windows 8 version.

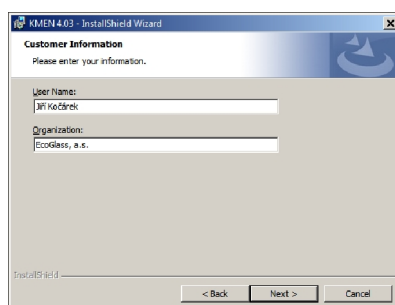
The glass properties calculations are based on the published equations and methods. The precision is only informative. The software author is not liable for any damages caused by incorrect software using and/or incorrect application or implementation of the results.

The software installation can be run only with the administrator rights.

## Installation

Installation is started by running of the “KMEN demo setup.exe” file delivered either electronically or on the installation CD.

During the installation is requested the name of the software user and the name of the subject who owns the license.



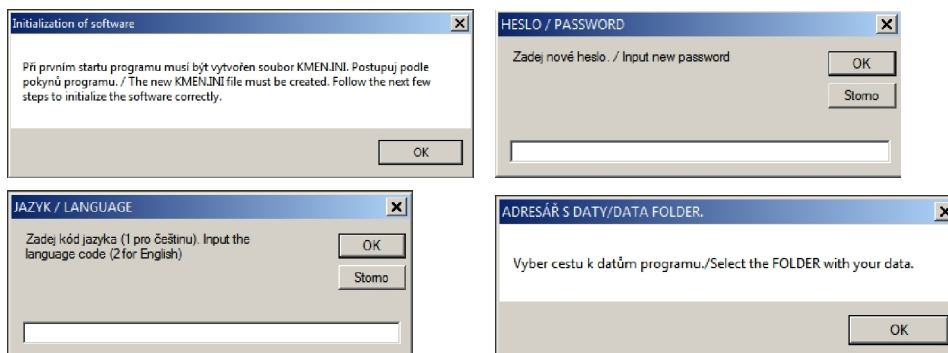
After the installation is created the set of shortcuts in the newly created branch “EcoGlass” as it is shown on the picture.



## The first software start

All the software usage must be done with the administrator rights. It is strongly recommended to change this level of rights directly in the shortcut properties.

During the first start is requested the information about the newly created password, default language code and folder where the data are stored. All these information can be changed alter in the software. The dialog boxes are shown on the following pictures.



After the selection of the data folder is the software automatically started and the newly created password is required.

## Software using

The main screen contains all the necessary data for work with the glass batch and glass composition archive. All these data are stored in the data folder in the text format.

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The upper left corner shows information about the number of oxides, raw materials and glass compositions in the databases. The main information about the actually solved glass composition are noted, too.

On the left side is set of buttons by which the user can start other functions, names of the buttons are self-explaining.

Next to the buttons is the table with the glass batch related to the actually solved glass composition, as well as the list of all raw materials

and oxides. On the right side is the list of the glass compositions in the database. The box above the list of glass compositions enables the full text search in the glass names.

### Entering the new raw material

The button "New material" opens the window with the raw material details. You have to enter the unique raw material name. Duplicity is not allowed. After that you enter the price, and other information.

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By clicking the mouse left button on the table cell with the factor you enter the oxide factor for the raw material. For example, when the raw material contains 30% Na<sub>2</sub>O, you enter the value 0.30 in the cell next to Na<sub>2</sub>O.

Saving and closing of the window is done by clicking to the button "Save", but if you can't want to save the newly created or changed raw material details, you click on the "Return" button.

The newly created raw material is added to the end of the list and can be used for the glass batch.

### Creating of the new glass batch

The raw materials are added to the glass batch by clicking on them in the raw material list.

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The weight of each raw material is changed by clicking on their name in the glass batch list. After entering of the weight is it shown in the glass batch and in the same time the glass oxide composition is updated and shown in the table.

The picture below shows the completed new glass batch after entering of the data:

For saving of the glass batch to the database is necessary to enter the unique glass name. If the name already exists, the old composition is overwritten by the new one. You can enter as well the comment to every glass batch. The properties of the glass can be checked by clicking of the button "Properties".

The calculated properties are only informative and can't be applied by the same way like the properties received by the measurement. The results respect only the glass batch composition, there are no correction included related to the specific reactions in the glass, evaporation during the melting and refining and other influences.

The Properties window shows as well the information how reliable is the calculated result. This information is expressed by the % of the oxides of the actual glass for which the software has found the coefficients. If the data for calculation are not found for 100% of oxides, the oxides without the factors are excluded from the composition and the remaining % of oxides is increased proportionally to get 100% for the calculation. But the information shows the real % for which the coefficients we found.

The calculation shows to the glass technologists mostly the trends related to the glass batch changes. This means that the calculation can help in the situations when the thermal expansion has to be changed, refractive index, specific density and other similar properties have to be changed. This software can help with the estimation how much to change the glass batch to get the required result.

### Saving of the glass batch

The glass batch can be saved and in case when the same name is already in the list, before overwriting is shown the warning.

### Change of the batch

If it is required to remove some raw material from the glass batch, it can be done either by entering of the zero weight, or by deleting of the raw material. For this it is necessary to check the field about the batch list. During deleting the name of raw materials change to red colour.

If the completely new glass batch should be created, the button "New glass batch" clears all the glass batch fields.

## Change of the raw material properties

For the change of the raw material check the field above. The background of the list gets blue to indicate the mode of the list. The change is done in the same window like the new raw material entering, but the name of the raw material is not opened for changes.

## Deleting of raw material

Deleting mode for the list of raw materials is switched on by clicking of the corresponding field above the list. The list background gets pink to indicate this mode. Deleting is done simply by clicking on the raw material name.

## How to work with the glass batch archive

Selection is done by clicking on the glass batch name. The batch composition is immediately shown in the glass batch list, the oxide % are calculated and the properties can be shown by clicking on the "Properties" button.

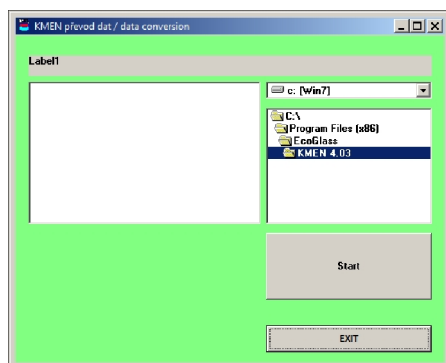
## Printing and data sharing

The software enables two methods of sharing the data. One of them is saving to the text file, which can be treated later by many ways as the simple text format.

The result can be as well printed on any connected printer.

Both text file saving and printing are available at the menu item "Output".

## Conversion from the previous KMEN versions



The data created by the KMEN 4.01 are not compatible and must be converted. This is why the installation folder includes the tool for this conversion, it is „KMEN data conversion.exe“.

You run this program, after that select the folder with the old data and the button START starts this conversion. The newly created data files have the extension “.KME” and they are located in the same data folder like the original old data.

This conversion must be done as many times as many data folders you have.

The new format is better for reading and editing than the old one as now is used a very simple text format.

## License for using of the software

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