

## FAQ – How to create new panel data or how to change panel data in SandStat?

*SandStat has the ability to change existing panel data or to create a new panel. This module is not included in the basic version of SandStat and must be activated in the licence file. The procedure is shown at following pages for design procedure according to EN 14509. At panels with a German Technical Approval the procedure is analogue (keyword „technical approval” instead of „basic calculation principle”).*

### Standard procedure



definition of design procedure (depending on licence)

Sandwich panel  
→ panel management

template for panel management

## Comment

The panel database has the following command structure:

|                    |                                |                                |
|--------------------|--------------------------------|--------------------------------|
| manufacturer A     | basic calculation principle A1 | sandwich panel A1a             |
|                    |                                | sandwich panel A1b             |
|                    | sandwich panel A1c             |                                |
|                    | .....                          |                                |
| .....              | basic calculation principle A2 | sandwich panel A2a             |
|                    |                                | sandwich panel A2b             |
| .....              | .....                          | .....                          |
| manufacturer B     | basic calculation principle B1 | sandwich panel B1a             |
|                    |                                | sandwich panel B1b             |
|                    | .....                          |                                |
|                    | .....                          | basic calculation principle B2 |
| sandwich panel B2b |                                |                                |
| .....              | .....                          | .....                          |
| .....              | .....                          | .....                          |

After selection of panel management, following template is shown:

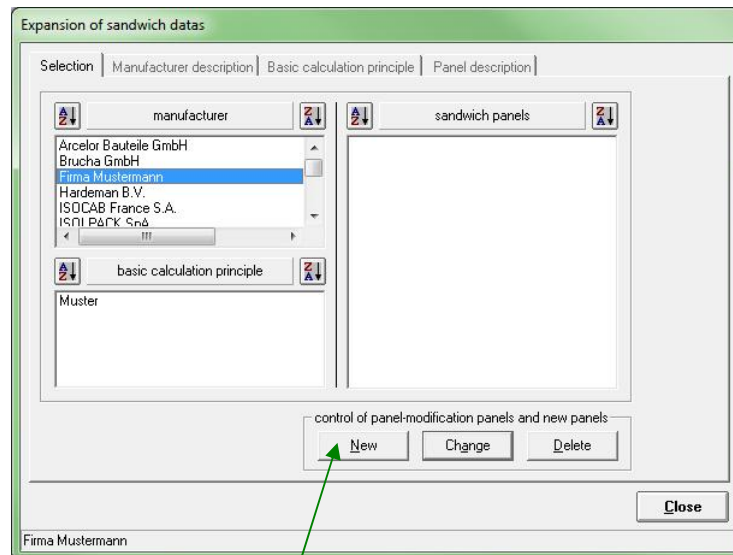
area for manufacturer

sandwich panel

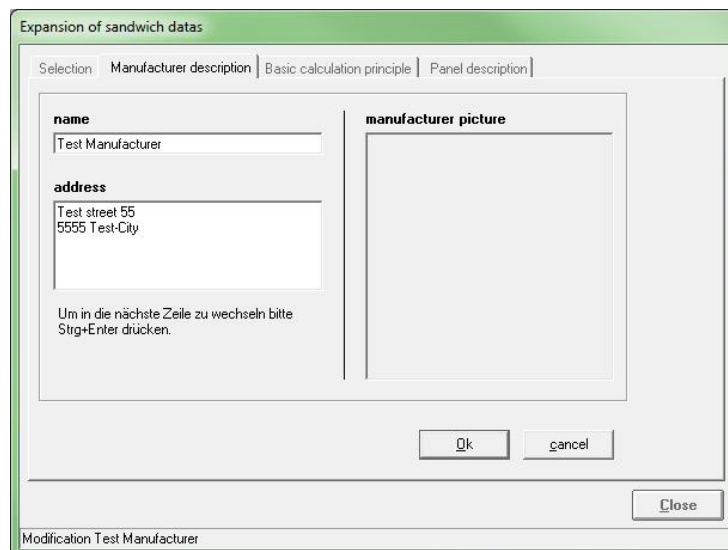
basic calculation principle

## 1) Create a new manufacturer

- select an existing manufacturer



- choose button „New“ in lower part of the template
- change information in sector „Manufacturer description“ (at the time only address)

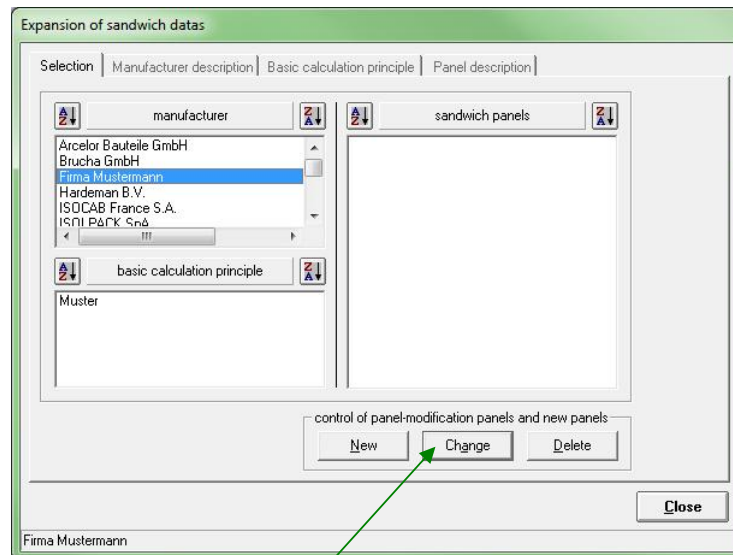


- confirm with „Ok“

Note: The name of the manufacturers must be different. Multiple names are not allowed.

## 2) Changing an existing manufacturer

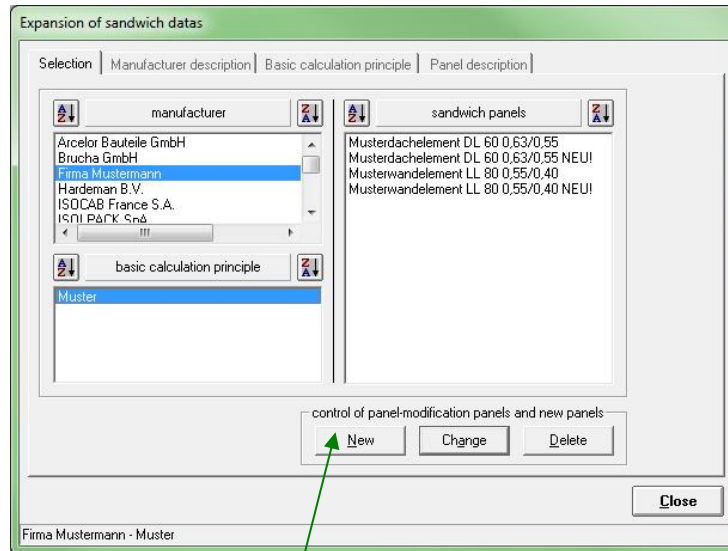
- select manufacturer you want to change



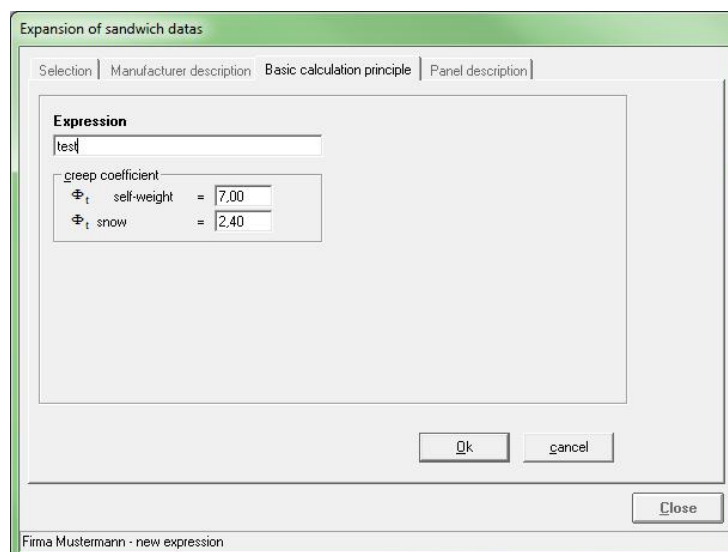
- choose button „change“ in lower part of the template
- change information in sector „Manufacturer description“ (at the time only address)
- confirm with „Ok“

### 3) Create a new basic calculation principle

- select anent manufacturer
- select an existing basic calculation principle



- choose button „New“ in lower part of template
- change information in sector „Basic calculation principle“
  - expression
  - creep coefficient (from EN14509, evaluation report or similar)



- confirm with „Ok“

Note: The name of basic calculation principles must be different. Multiple names are not allowed.

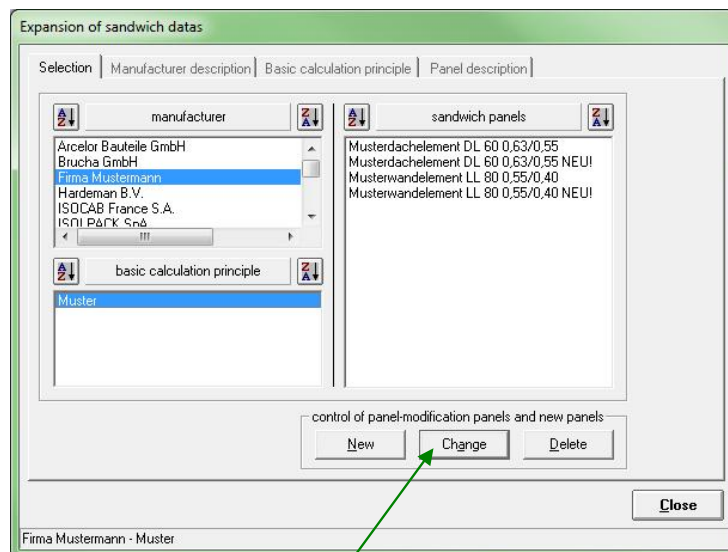
Important:

The creep coefficients are valid for all panels inside of this basic calculation principle.

At design procedure of German Technical Approval, there are also information concerning shear and compression strength reduction coefficient as well as statements for the approval.

#### 4) Changing an existing basic calculation principle

- select anent manufacturer
- select the basic calculation principle you want to change

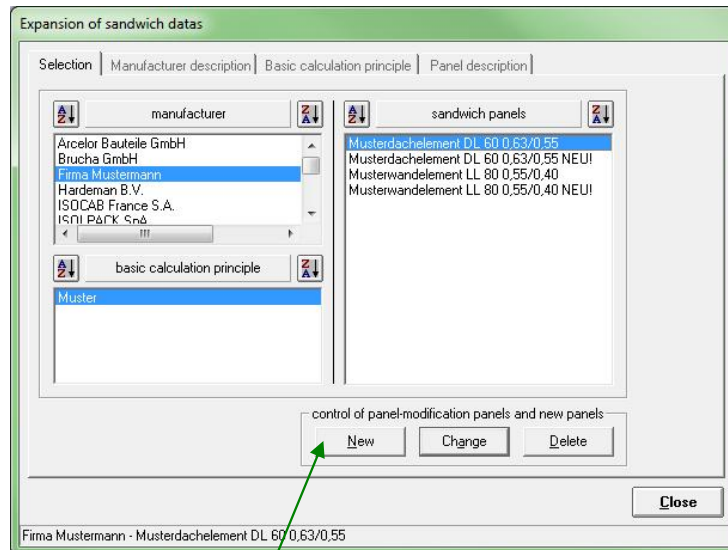


- choose button „Change“ in lower part of template

Rest see No. 3)

5) Create a new panel

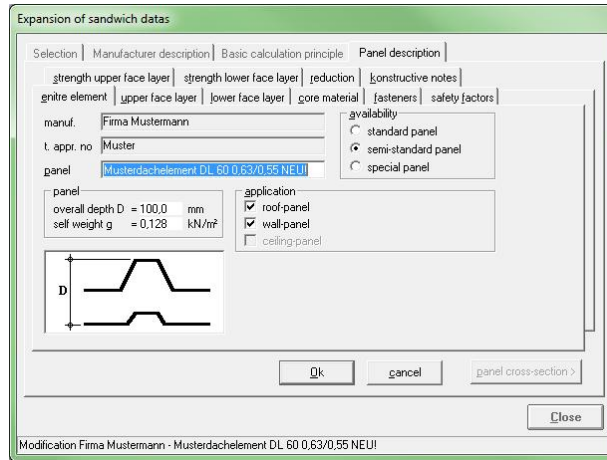
- select anent manufacturer
- select anent basic calculation principle
- select an existing panel



- choose button „New“ in lower part of template
- change information in sector „Panel descriptions“:

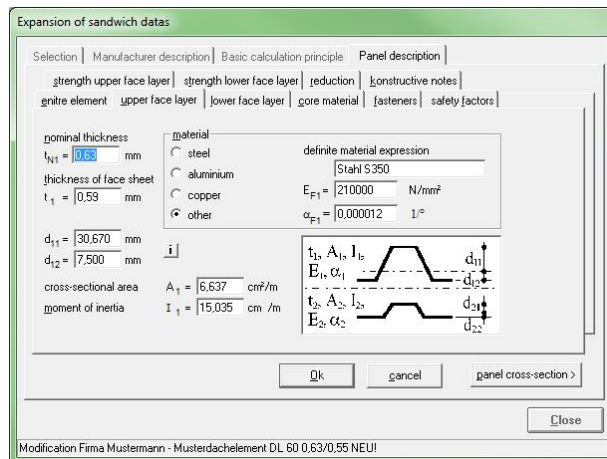
(Note: When you want to create a new panel, specifications of selected panel are default for the new panel)

- o to entire element



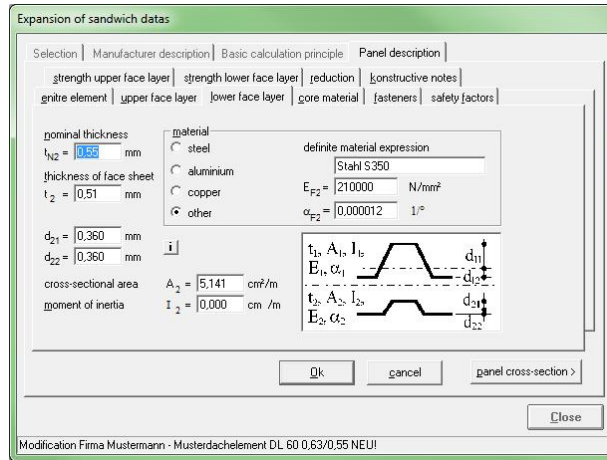
Note: The name of elements must be different. Multiple names are not allowed.

- o to upper face layer



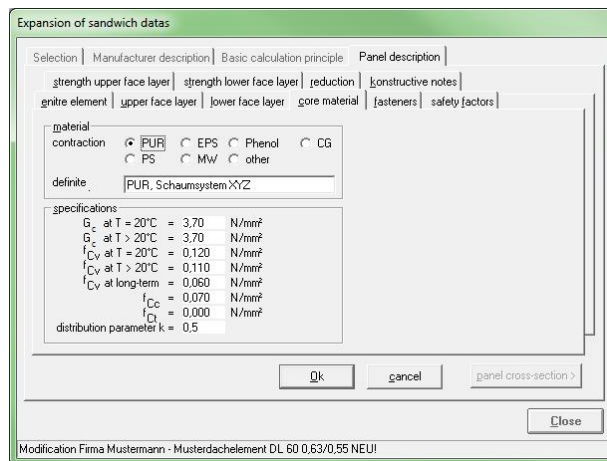
Note: The cross-section values can be e.g. from a comparative calculation, e.g. with software who calculates the cross-section of thin walled sections.

- o to lower face layer



Note: The cross-section values can be e.g. from a comparative calculation, e.g. with software who calculates the cross-section of thin walled sections.

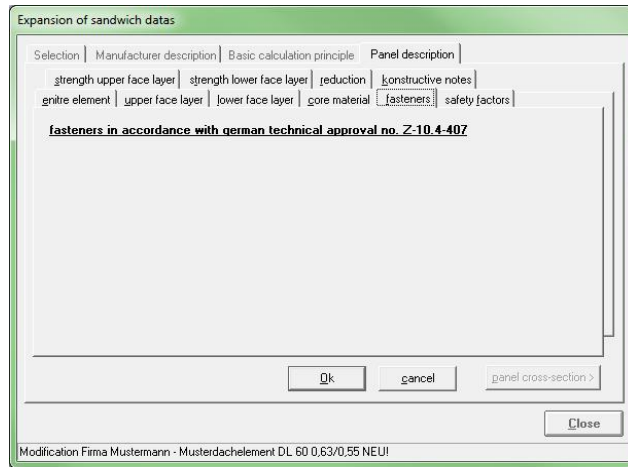
- o to core material



Note: The specification of core material are extracted from e.g. CE-mark, evaluation report or similar.

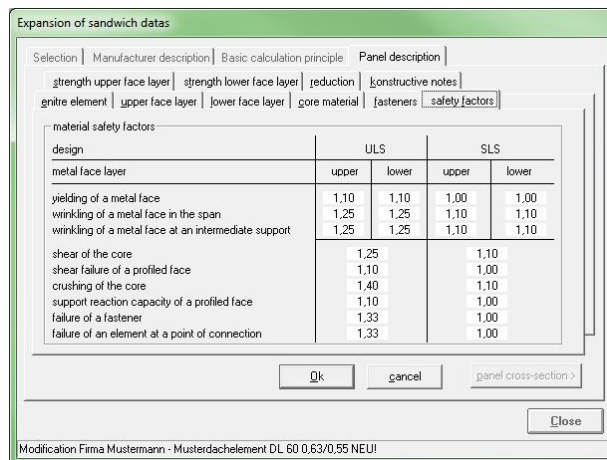
At design procedure of German Technical Approval, specifications are at annex B of the approval.

- o to fasteners



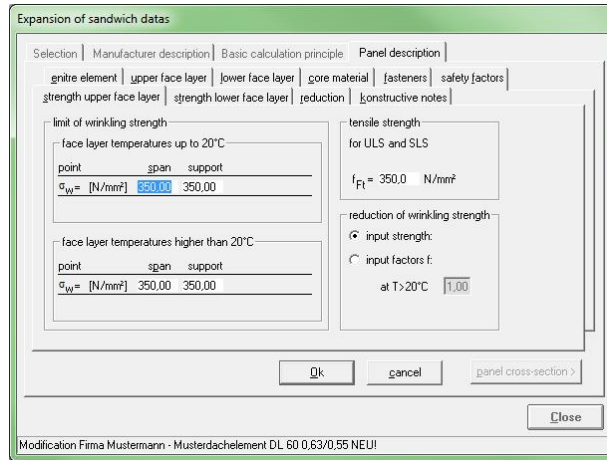
Note: At this time, only fasteners according to German Technical Approval No. Z-14.4-407 are possible. For input of special cases (e.g. for hidden fixings), please refer to iS-engineering GmbH.

- o to safety factors



Note: The safety factors must be defined at design procedure EN 14509. They can be found in EN 14509, in evaluation report or similar.

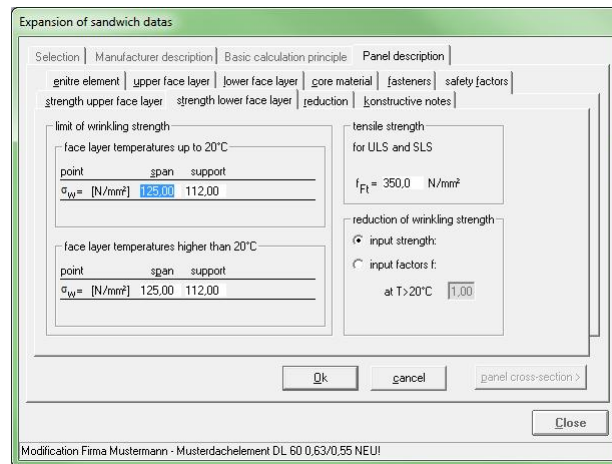
- o to strength upper face layer



Note: The limits of wrinkling strength can be found in CE-Mark, in evaluation report or similar.

At design procedure of German Technical Approval, specifications are at annex B of approval.

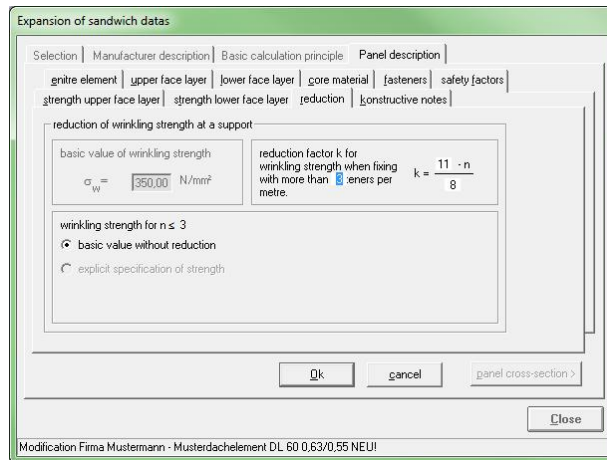
- o to strength lower face layer



Note: The limits of wrinkling strength can be found in CE-Mark, in evaluation report or similar.

At design procedure of German Technical Approval, specifications are at annex B of approval.

- o to reduction factors



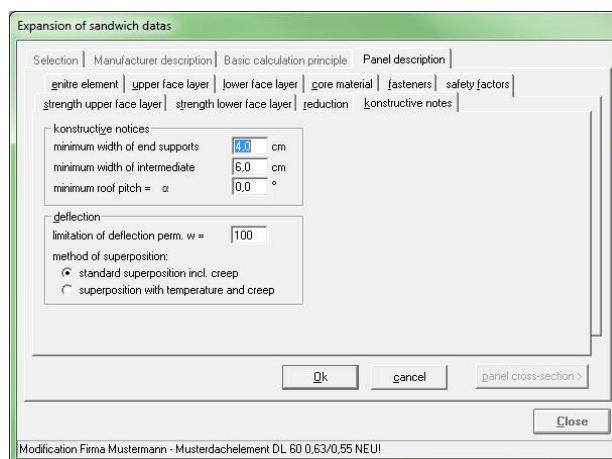
Note: EN 14509 does not have any reduction of wrinkling strengths at a support subject to number of fasteners. However we suggest, analogue to German Technical Approval, to consider this.

For example in the picture above: more than 3 fasteners, wrinkling strength will be reduced with factor  $k = (11-n) / 8$ ; e.g.  $n = 5 \rightarrow k = (11-5)/8 = 0,75$ .

If no reduction is wanted, please input  $n = 12$ .

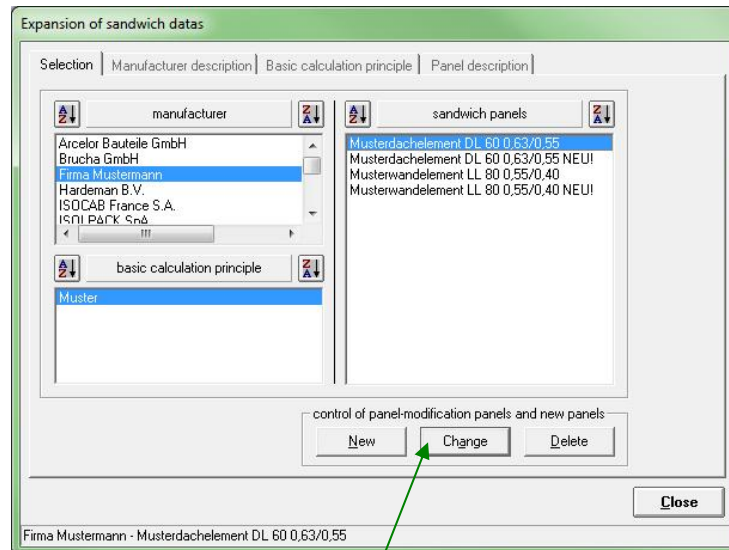
At design procedure of German Technical Approval, reduction is regulated in annex B.

- o to constructive notes



## 6) Changing an existing panel

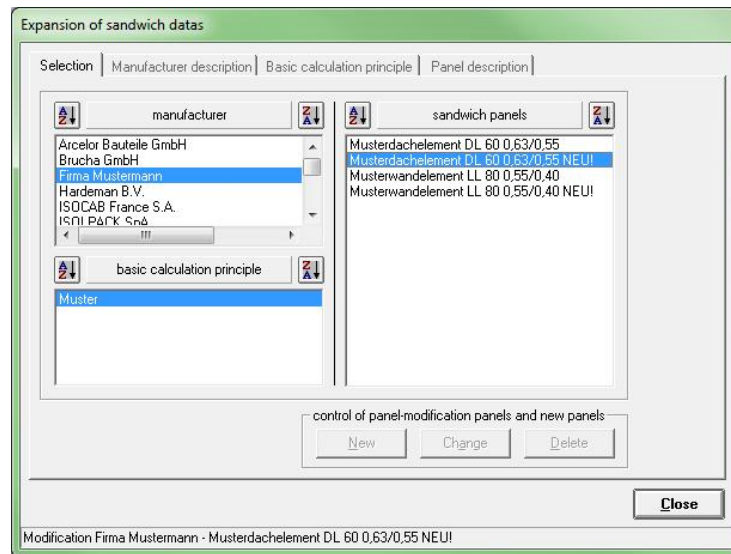
- select anent manufacturer
- select anent basic calculation principle
- select panel you want to change




- choose button „Change“ in the lower part of the template
- change information in the sector „Panel description“

Rest see No. 5)

When the changes of panel management are finished, you can close template with button „Close“.



The panel-data will be read out from database and you can start a new calculation by choosing a panel at  panel selection.

Please check the changes, e.g. by looking at printout of panel-data.