FAQ – How to make complete allowable span tables with SandStat?

SandStat has the ability to calculate complete allowable span tables. This module is not included in the basic version of SandStat and must be activated in the licence file.

General procedure

 Definition of design procedure (depending on the licence)

 Selection of the sandwich panel

 Definition of static system *)

 Determination of loads *)

 Starting iteration in menu „design“

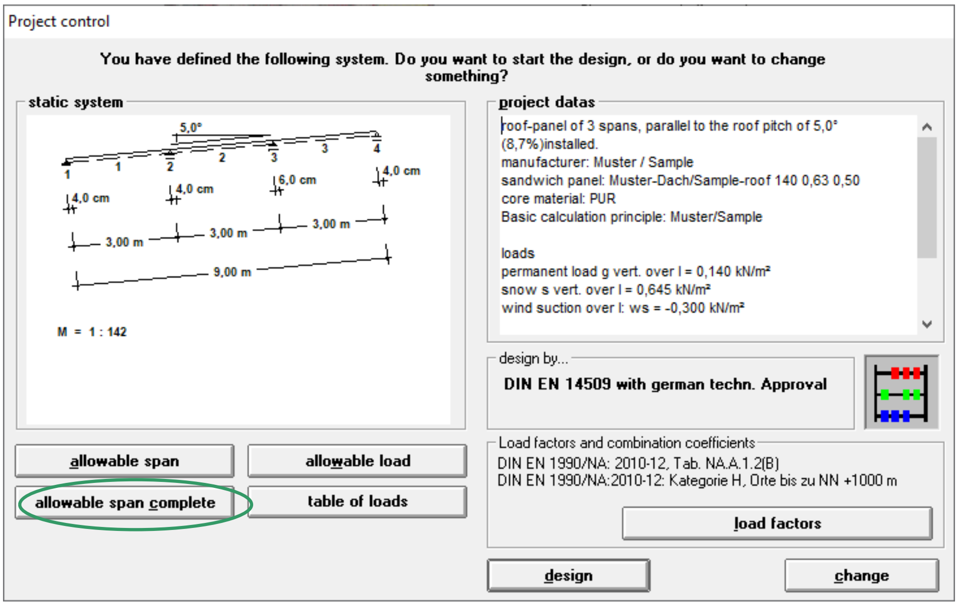
*) Note: the inputs in those masks will not be considered at the span table iteration because the static system and the loads will be generated new.

Important note: the results will be written as txt-file. For the file name the actual date and time is used. At certain date formats (f.ex. „dd/mm/yyyy“) at Microsoft Windows, it may be possible that there are error messages. The preferred format is “dd.mm.yyyy”.

Comment

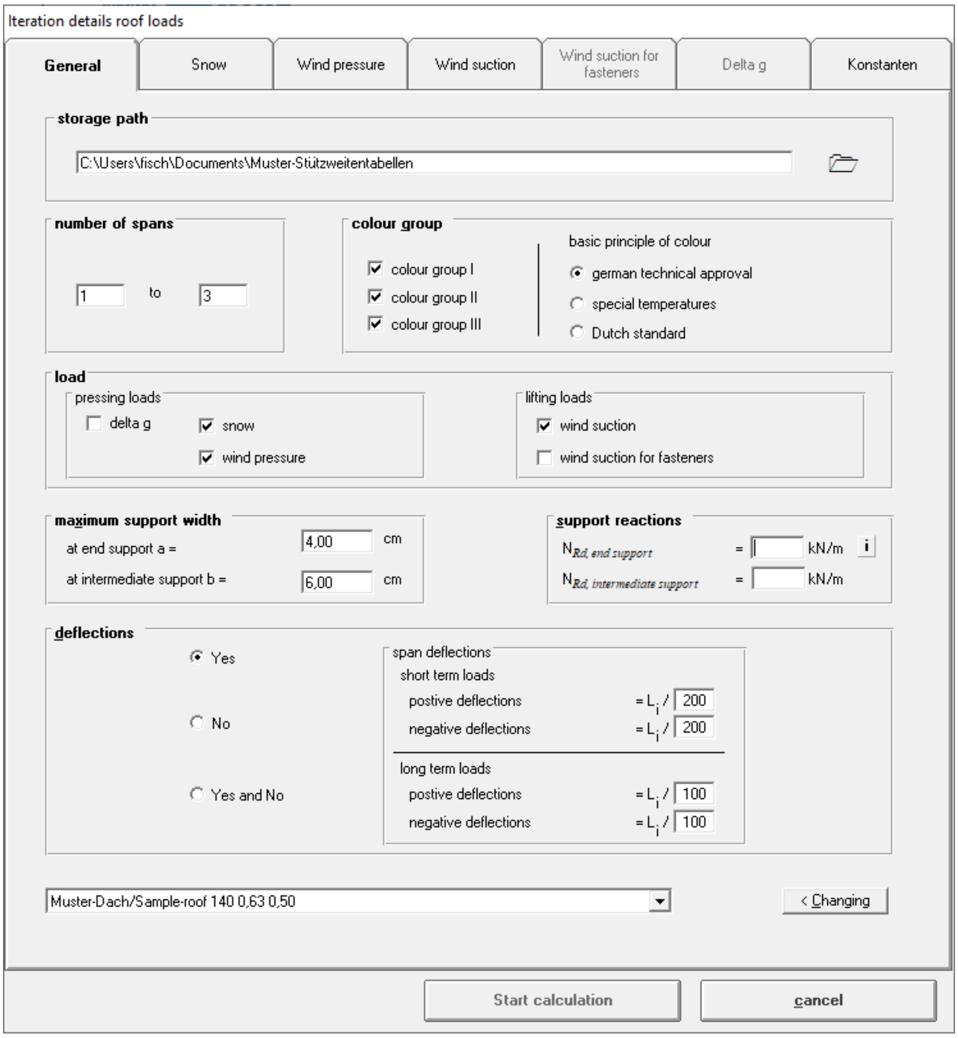
After choosing the sandwich panel and definition of the static system and loads, you can choose at the menue „design“ the iteration menu with button „allowable span complete“ (perhaps after definition and adjustment of the load factors).

Please note that the specified system as well as generated loads are not taken into account in the span calculation.



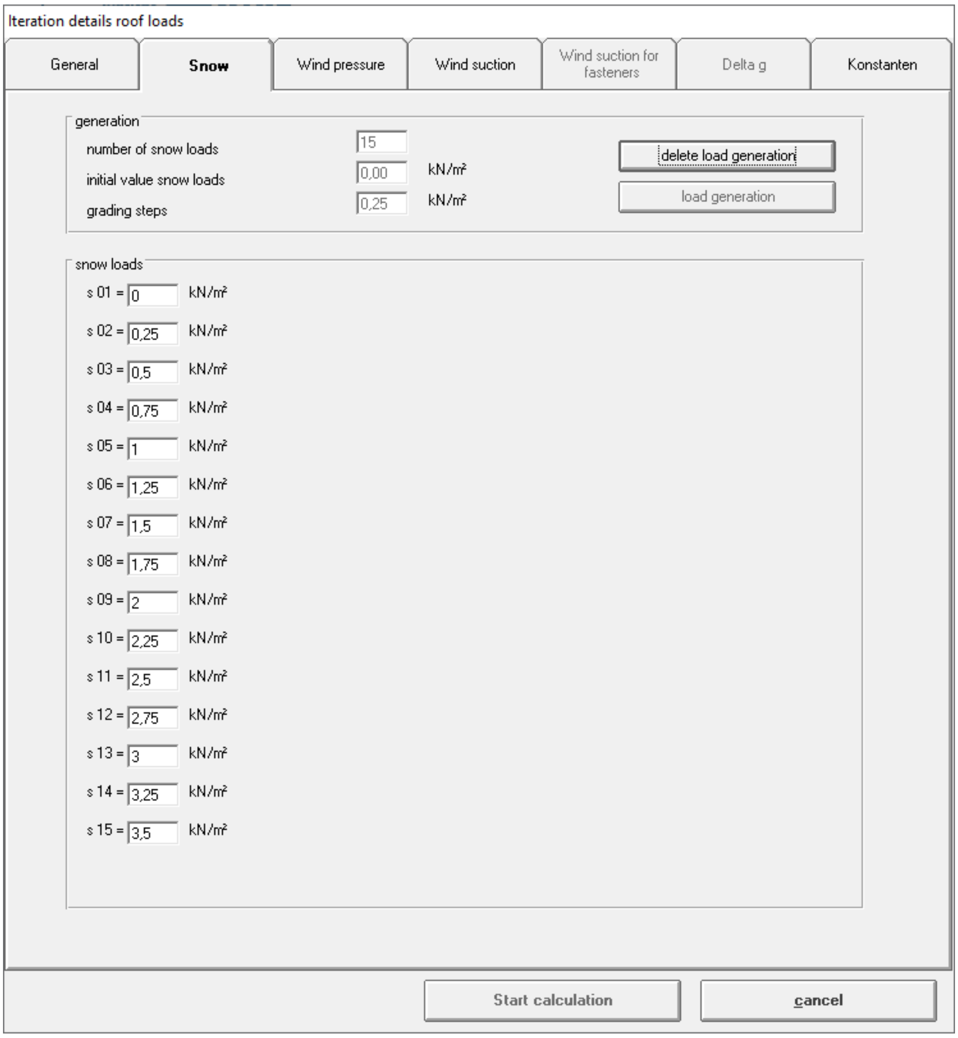
In the following template, you can define the iteration parameters:

- location of the result files
- number of span(s)
- regulation of the colour group and the basis (see page 6)
- what kind of loads shall be arranged (wind pressure, wind suction, wind suction for fasteners as well as at roof panels snow loads and “delta g”)
- possibly deflault maximum support width at pressing loads (see notes at page 7)
- possibly default maximum tension strength at connection with the subconstruction at suction loads (see notes at page 7)
- information on the consideration of deflections
- specification of further constant loads (see notes page 8)
- selection of calculating sandwich panels



When the load type is selected at the first slide, the accordant slide for input of the values is unlocked.

The snow load as well as “delta g” is only available at iteration of roof elements. The load type live load is in process.



At the relevant slide the load can be generated by defining the numbers of loads, the beginning value and the grading steps. With the click on “load generation” the single load values will be generated. Successively single values can be changed manually. The complete generation values are removed by selecting "delete load generation".

Tip: A load value of 0.0 kN/m² should be avoided in order not to cause numerical discontinuities. In this case, you can manually change the automatically generated value to e.g. 0.01 kN/m² afterwards.

Remarks to input datas

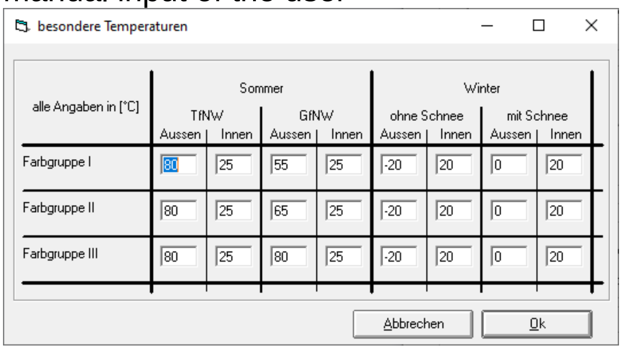
- It is only possible to calculate systems with equal span lengths.
- The load is constant over the span.
- At temperature loads the following bases are lodged:
  - German technical approval

Season	Insolation	Analysis of stability T_1 [°C]	Analysis of serviceability: Colour group*	R_G** [%]	T_1 [°C]
Winter	--	-20	all	90-8	-20
incl. snow load	--	0	all	90-8	0
Summer	direct	+80	I II III	90-75 74-40 39-8	+55 +65 +80
	indirect***	+40	all	90-8	+40

* I = very bright II = bright III = dark
** R_G: Reflection factor related to barium sulphate = 100%. (The stated brightness values are based on the Hunter-L·a·b method.)
*** Direct insolation" on a wall is understood to apply to the case of a curtain façade with rear ventilation in front of the sandwich wall (e.g. often applied for cold stores.

Temperature inside summer +25°C
winter +20°C

  - Special temperatures
manual input of the user



  - Dutch standard
As german technical approval, but at summer at serviceability limit state:
    - Colour group I: 50°C
    - Colour group II: 60°C
    - Colour group III: 75°C
temperature inside summer and winter + 20°C

- If there are multiple elements to calculate, the respective self-weight read out of the element database will be used.
- At the arrays concerning the support width the values for support widths can be given. Those values will be considered at pressing loads (wind pressure as well as "delta g" and snow at roof panels) load case snow and wind pressure.
- The maximum support reactions are needed at iteration of wind suction for fasteners. At the equal arrays the maximum tension force for the connection with the sub-construction as design-value N_{Rd} - separated for end and intermediate support - can be declared. This verification is particularly required for wall elements with hidden fixing.

  If no connection with the sub-construction shall be considered, the check mark at "wind suction for fasteners" has to be deactivated. If applicable the limitation of the span length can be made only because of the value at intermediate support or at end support.

  When considering several sandwich panels, there is no differentiation of the N_{Rd} values; the specified values are used for all selected sandwich panels. It follows that when calculating several element types with different N_{Rd} values to be applied, these must be calculated individually (or in groups) by calling up this mask several times.

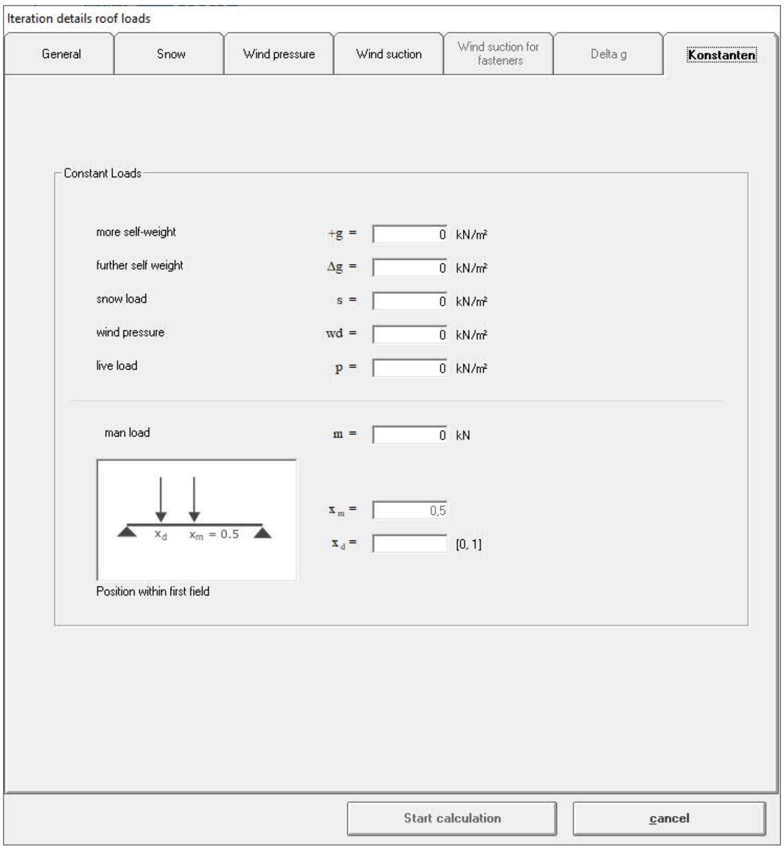
- At slide “Konstanten”, further constant loads can be defined that are not applied iteratively. These loads are then superimposed with the variable loads.

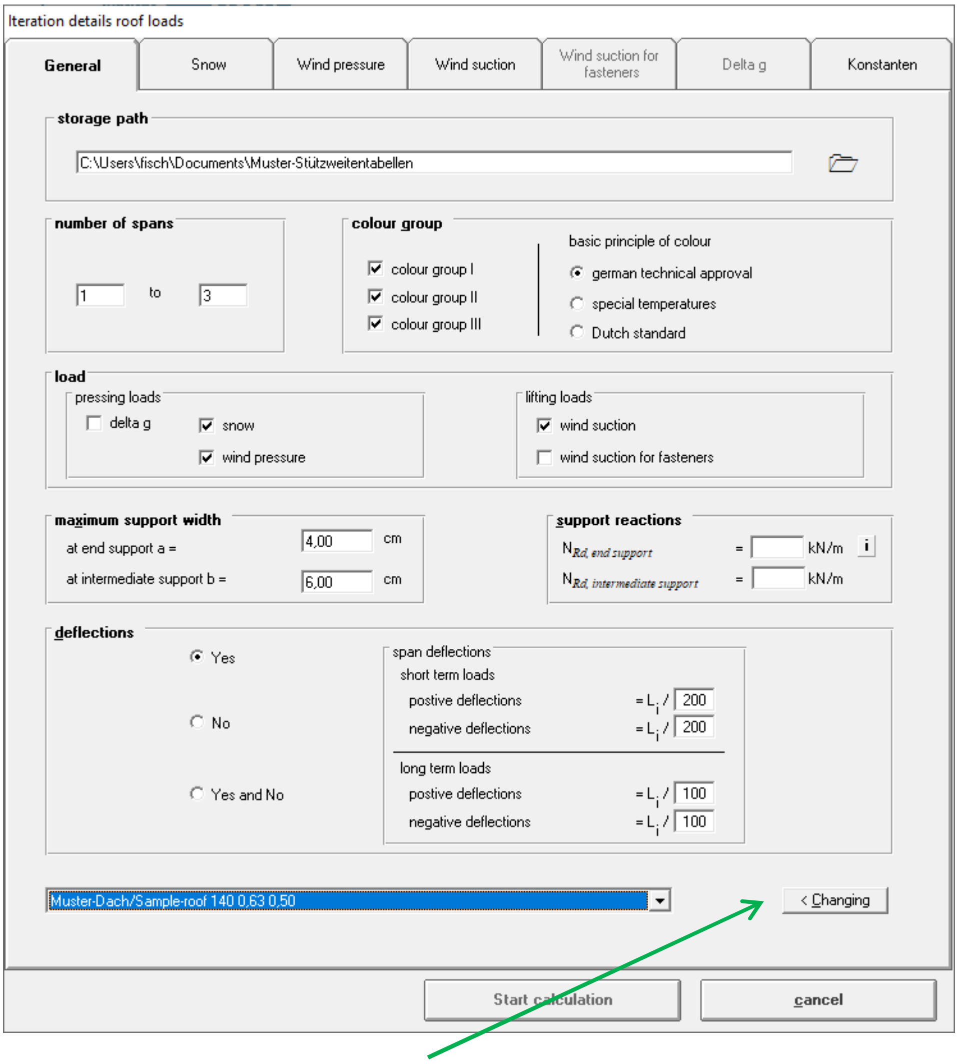
  It is also possible to specify a live load that is constant over the span length.

  Furthermore, a man load can be defined, which can be applied with a predefined load (usually 1,0 kN) at a defined point in the span. In this case, the load point is specified in relation to the span length from 0 (at left support) via 0,5 (in the middle of the span) up to 1,0 (at right support) with any value between 0 and 1,0.

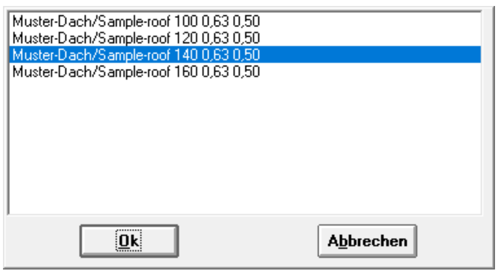
  At this point we would like to point out that when applying live loads and/or man loads, the combination coefficients must be adjusted so that, if necessary, a superposition with other load cases is also carried out.

  The additional “more self-weight” acts like the dead self-weight of the sandwich panel and is always applied in the consideration. The “further self-weight” from possibly removable dead loads, on the other hand, is not taken into account when superposing wind suction loads.





If the load iteration tables shall be generated for several sandwich elements, you can choose those elements in the lower part of the mask.



Please notice, that there are only the sandwich panels available who are included at the manufacturer you have chosen before. It is not possible to calculate elements from different manufacturer in one calculation. For multiple selection please use the windows function with STRG-button (not succeeded) as well as the Shift-button (succeeded).

If all inputs are made at side „General“, you can start the calculation by clicking on button „Ok“. Please notice, that the calculation period may be very long especially when many options or sandwich panels are chosen. Depending on the performance of the computer the calculation can takes more than several hours while the computer may be too slow for other applications. Therefore please unlock only some options at the first time. Maybe it is also possible for you to make the calculation over night or to use computer who isn’t use otherwise.

SandStat starts the iteration with the load you specify and with a span-length of 1 m. This span-length is increased or decreased depending on the maximum utilisation. When a utilisation of 99,8% to 100,4% is reached, the iteration is terminated. If this condition (maximum utilisation between 99,8% and 100,4%) has not been reached after 100 iteration steps, the iteration is terminated and noted accordingly in the output of the results.

After the end of each iteration step the next load will be applied and the iteration starts again until all loads are calculated.

Output of results

The output of the results is done in several files that are located in the specified storage location:

- „*panel name* – parameters.txt“
- „StuetzW.Log“
- „Schnee – *panel name*.txt“
- “Table - snow-*panel name*.txt
  (if snow was considered)
- „Winddruck – *panel name*.txt”
- “Table – wind pressure – *panel name.*txt”
  (if wind pressure was considered)
- „Windsog – *panel name.*txt”
- “Table – wind suction – *panel name.*txt”
  (if wind suction was considered)

etc. for the selected load type...

At the following pages the single results files will be regarded and explained at an example calculation.

1) Parameters for calculation of allowable span table at file „*sandwich panel* – parameters.txt“

At text-file „*sandwich panel* – parameters.txt“ the basic values for the calculation are written (f.ex. the characteristics of the sandwich element). The file can be open with the windows program WordPad or with another general word processing program like Microsoft© Word.

Consecutively an example with the file „MusterDachSampleroof 140 0_63 0_50 - parameters.txt“:

```
iteration of allowable span length for panel Muster-Dach/Sample-roof 140 0,63 0,50
manufacturer Muster / Sample
technical approval/calculation principle Muster/Sample
usage as roof panel
roof pitch 5,0°
Version 4.08.080
beginning iteration at 31.10.2021
set point for fixings
at end support NRd = 0,00 kN
at intermediate support + NRd = 0,00 kN
set point for support width:
end support = 4,0 cm
intermediate support = 6,0 cm


PANEL SPECIFICATION
sandwich panel
overal depth of the panel D  = 140 mm
distance between centroids of faces e       =108,593 mm
upper lever arm R1              = 44,5168 mm
lower lever arm R2              = 64,0762 mm
self weight g    = 0,141 kN/m²

core material
material        PUR
shear modulus G_c               = 3,7 N/mm²
creep coefficient psi_t self-weight             = 3,5
creep coefficient psi_s snow                    = 2,5
shear strength f_Cv             = 0,12 N/mm²
shear strength f_CV long term                   = 0,06 N/mm²
compression strength f_Cc   = 0,12 N/mm²
parameter of support reaction capacity k    = 0

upper face layer:
material        S350GD
modulus of elasticity E_F1    = 210000 N/mm²
yield strength f_Ft1            = 350 N/mm²
coefficient of thermal expansion alpha_F1  = 0,000012 1/°
nominal thickness of face sheet t_nom      = 0,63 mm
design thickness t_1            = 0,56 mm
cross-sectional area A_1        = 6,343187 mm²
moment of inertia I_1           = 13,31376mm^4
distance between centroids of faces d_11  = 30,332 mm
distance between centroids of faces d_12  = 9,468 mm
design resistance strength of the face layers
sigma_11_span_lower 20°C                    = 296 N/mm²
sigma_11_support_lower 20°C                 = 296 N/mm²
sigma_11_span_higher 20°C                   = 296 N/mm²
sigma_11_support_higher 20°C                = 296 N/mm²
```

lower face layer:
material S350GD
modulus of elasticity E_F2 = 210000 N/mm²
yield strength f_Ft2 = 350 N/mm²
coefficient of thermal expansion alpha_F2 = 0,000012 1/°
nominal thickness of face sheet t_nom = 0,5 mm
design thickness t_2 = 0,435 mm
cross-sectional area A_2 = 4,390663 mm²
moment of inertia I_2 = 0mm^4
distance between centroids of faces d_21 = 0,55 mm
distance between centroids of faces d_22 = 0,55 mm
design resistance strength of the face layers
sigma_11_span_lower 20°C = 155,1 N/mm²
sigma_11_support_lower 20°C = 140,1 N/mm²
sigma_11_span_higher 20°C = 131,9 N/mm²
sigma_11_support_higher 20°C = 119,1 N/mm²

material safety factors:
at ultimate limit state
yielding of the upper face layer = 1,1
wrinkling of the upper face layer in span = 1,15
wrinkling of the upper face layer at an intermediate support = 1,15
yielding of the lower face layer = 1,1
wrinkling of the lower face layer in the span = 1,15
wrinkling of the lower face layer at an intermediate support = 1,15
shear of the core = 1,36
shear failure of a profiled face = 1,1
crushing of the core = 1,36
support reaction capacity of a profiled face = 1,1
at serviceability limit state
yielding of the upper face layer = 1
wrinkling of the upper face layer in span = 1,03
wrinkling of the upper face layer at an intermediate support = 1,03
yielding of the lower face layer = 1
wrinkling of the lower face layer in the span = 1,03
wrinkling of the lower face layer at an intermediate support = 1,03
shear of the core = 1,1
shear failure of a profiled face = 1
crushing of the core = 1,1
support reaction capacity of a profiled face = 1

combination coefficient:
psi_0 for snow = 0,5
psi_0 for wind = 0,6
psi_0 for temperature = 0,6
psi_0 for temperature with index a = 1
psi_0 for live load = 0
psi_1 for snow = 0,2
psi_1 for snow index b = 0,2
psi_1 for wind = 0,2
psi_1 for wind index b = 0,2
psi_1 for temperature = 0,5
psi_1 for temperature with index a = 0
psi_2 for snow = 0
psi_2 for wind = 0
psi_2 for temperature = 0
psi_2 for temperature with index a = 1
psi_2 for live load = 0

load factors: DIN EN 1990/NA: 2010-12, Tab. NA.A.1.2(B)
ultimate limit state:
permanent action unfavorable = 1,35
permanent action favorable = 1
variable actions = 1,5
termperature actions = 1,5
creep effects = 1
serviceability limit state:
permanent actions = 1
variable actions = 1
termperature actions = 1
creep effects = 1

maximum deflection:
- With maximum deflection
  short term positive = L/200
  short term negative = L/200
  long term positive = L/100
  short term negative = L/100

Temperatures:
colour group 1
  summer, ULS, outside: 80° K
  summer, ULS, inside: 25° K
  summer, SLS, outside: 55° K
  summer, SLS, inside: 25° K
  winter without snow, ULS, outside: -20° K
  winter without snow, ULS, inside: 20° K
  winter with snow, ULS, outside: 0° K
  winter with snow, ULS, inside: 20° K
Temperatures:
colour group 2
  summer, ULS, outside: 80° K
  summer, ULS, inside: 25° K
  summer, SLS, outside: 65° K
  summer, SLS, inside: 25° K
  winter without snow, ULS, outside: -20° K
  winter without snow, ULS, inside: 20° K
  winter with snow, ULS, outside: 0° K
  winter with snow, ULS, inside: 20° K
Temperatures:
colour group 3
  summer, ULS, outside: 80° K
  summer, ULS, inside: 25° K
  summer, SLS, outside: 80° K
  summer, SLS, inside: 25° K
  winter without snow, ULS, outside: -20° K
  winter without snow, ULS, inside: 20° K
  winter with snow, ULS, outside: 0° K
  winter with snow, ULS, inside: 20° K

Please check this information critically.

2) Single results of the individual loads using the example of snow load

At the result-file „Schnee-*panel name.*txt" the single results are written for this load case. The file can be open with the windows program WordPad or with another general word processing program like Microsoft© Word.

It is possible to copy the results into Microsoft Excel © to obtain a clear tabular presentation (separator = tabulator).

The following is an excerpt from the sample calculation....

Felder	Stützweite	EnAuflBreite	ZwAuflBreite	g	dg	s	wd	wsa	wss	dTSG
1	9270	4	6	0,141	0	0	0	0	0	30
1	8522	4	6	0,141	0	0,25	0	0	0	30
1	7496	4	6	0,141	0	0,5	0	0	0	30
1	5360	4	6	0,141	0	0,75	0	0	0	30
1	4171	4	6	0,141	0	1	0	0	0	30
1	9270	4	6	0,141	0	0	0	0	0	40
1	8522	4	6	0,141	0	0,25	0	0	0	40
1	7496	4	6	0,141	0	0,5	0	0	0	40
1	5360	4	6	0,141	0	0,75	0	0	0	40
1	4171	4	6	0,141	0	1	0	0	0	40
1	9270	4	6	0,141	0	0	0	0	0	55
1	8522	4	6	0,141	0	0,25	0	0	0	55
1	7496	4	6	0,141	0	0,5	0	0	0	55
1	5360	4	6	0,141	0	0,75	0	0	0	55
1	4171	4	6	0,141	0	1	0	0	0	55
2	12879	4	6	0,141	0	0	0	0	0	30
2	9353	4	6	0,141	0	0,25	0	0	0	30

dTST	dTW	dTWms	M	xM	p	FG	zul_f	TfNW_Sigma	TfNW_Tau	TfNW_Aufl_A
55	-40	-20	0	0	0	1	200	0,3694	0,2572	0,25
55	-40	-20	0	0	0	1	200	0,6296	0,4332	0,6825
55	-40	-20	0	0	0	1	200	0,8164	0,6258	0,9986
55	-40	-20	0	0	0	1	200	0,6968	0,5953	0,9988
55	-40	-20	0	0	0	1	200	0,6495	0,5647	0,9988
55	-40	-20	0	0	0	2	200	0,3694	0,2572	0,25
55	-40	-20	0	0	0	2	200	0,6296	0,4332	0,6825
55	-40	-20	0	0	0	2	200	0,8164	0,6258	0,9986
55	-40	-20	0	0	0	2	200	0,6968	0,5953	0,9988
55	-40	-20	0	0	0	2	200	0,6495	0,5647	0,9988
55	-40	-20	0	0	0	3	200	0,3694	0,2572	0,25
55	-40	-20	0	0	0	3	200	0,6296	0,4332	0,6825
55	-40	-20	0	0	0	3	200	0,8164	0,6258	0,9986
55	-40	-20	0	0	0	3	200	0,6968	0,5953	0,9988
55	-40	-20	0	0	0	3	200	0,6495	0,5647	0,9988
55	-40	-20	0	0	0	1	200	0,5424	0,3256	0,3473
55	-40	-20	0	0	0	1	200	0,7251	0,4805	0,7491

TfNW_Aufl_B	GfNW_Sigma	GfNW_Tau	GfNW_Aufl_A	GfNW_Aufl_B	GfNW_Ver	Bef_End	NRd_End	Bef_Zw	NRd_Zw
0	0,2414	0,1223	0,1498	0	0,9982	0	0	0	0
0	0,4047	0,2375	0,3818	0	0,9994	0	0	0	0
0	0,5237	0,3371	0,5506	0	0,8896	0	0	0	0
0	0,4578	0,3152	0,5472	0	0,54	0	0	0	0
0	0,4364	0,2944	0,5453	0	0,389	0	0	0	0
0	0,2414	0,1319	0,1498	0	0,9982	0	0	0	0
0	0,4047	0,2375	0,3818	0	0,9994	0	0	0	0
0	0,5237	0,3371	0,5506	0	0,8896	0	0	0	0
0	0,4578	0,3152	0,5472	0	0,54	0	0	0	0
0	0,4364	0,2944	0,5453	0	0,389	0	0	0	0
0	0,2414	0,1464	0,1498	0	0,9982	0	0	0	0
0	0,4047	0,2375	0,3818	0	0,9994	0	0	0	0
0	0,5237	0,3371	0,5506	0	0,8896	0	0	0	0
0	0,4578	0,3152	0,5472	0	0,54	0	0	0	0
0	0,4364	0,2944	0,5453	0	0,389	0	0	0	0
0,4631	0,9982	0,1604	0,216	0,4434	0,8031	0	0	0	0
0,9988	0,9811	0,2681	0,3277	0,7584	0,5147	0	0	0	0

Aufl1_TfNW	Aufl2_TfNW	Aufl3_TfNW	Aufl4_TfNW	Aufl1_GfNW	Aufl2_GfNW	Aufl3_GfNW	Aufl4_GfNW	NSd_End	NSd_Zw
1	1	0	0	0,6	0,6	0	0	0	0
2,73	2,73	0	0	1,53	1,53	0	0	0	0
3,99	3,99	0	0	2,2	2,2	0	0	0	0
4	4	0	0	2,19	2,19	0	0	0	0
4	4	0	0	2,18	2,18	0	0	0	0
1	1	0	0	0,6	0,6	0	0	0	0
2,73	2,73	0	0	1,53	1,53	0	0	0	0
3,99	3,99	0	0	2,2	2,2	0	0	0	0
4	4	0	0	2,19	2,19	0	0	0	0
4	4	0	0	2,18	2,18	0	0	0	0
1	1	0	0	0,6	0,6	0	0	0	0
2,73	2,73	0	0	1,53	1,53	0	0	0	0
3,99	3,99	0	0	2,2	2,2	0	0	0	0
4	4	0	0	2,19	2,19	0	0	0	0
4	4	0	0	2,18	2,18	0	0	0	0
1,39	2,78	1,39	0	0,86	2,66	0,86	0	0	0
3	5,99	3	0	1,31	4,55	1,31	0	0,15	0

Comment to the name of columns:

Felder	-	number of span (static system)
Einzelstützweite	-	allowable single span length loads [mm]
EnAuflBreite	-	preset end support width [mm]
ZwAuflBreite	-	preset intermediate support width [mm]
g	-	self-weight of sandwich panel [kN/m²]
dg	-	extra self-weigth [kN/m²]
s	-	snow load [kN/m²]
wd	-	wind pressure [kN/m²]
wsa	-	wind suction for sandwich panel [kN/m²]
wss	-	wind suction for fasteners [kN/m²]
dTSG	-	temperature difference at summer serviceability limit state
dTST	-	temperature difference at summer ultimate limit state
dTW	-	temperature difference at winter
dTWms	-	temperature difference at winter with snow
M	-	men load [kN]
xM	-	distance of men load related to the span length
p	-	live load [kN/m²]
FG	-	colour group
zul_f	-	limit of deflection
Tfnw_Sigma	-	course of evaluation at ULS for normal stresses at face layers
Tfnw_Tau	-	course of evaluation at ULS for shear stresses at core
Tfnw_Aufl_A	-	course of evaluation at ULS for pressure at end support
Tfnw_Aufl_B	-	course of evaluation at ULS for prssure at intermediate support
Gfnw_Sigma	-	course of evaluation at SLS for normal stresses at face layers
Gfnw_Tau	-	course of evaluation at SLS for shear stresses at core
Gfnw_Aufl_A	-	course of evaluation at SLS for pressure at end support
Gfnw_Aufl_B	-	course of evaluation at SLS for pressure at interm. support
Gfnw_Ver	-	course of evaluation delfections
BefEnd	-	course of evaluation for fasteners at end support
NRd_End	-	design value for support reactions at end support
BefZw	-	course of evaluation for fasteners at intermediate support
NRd_Zw	-	design value for support reactions at intermediate support
Aufl1_Tfnw	-	required support width at 1st support for ULS [cm]
Aufl2_Tfnw	-	required support width at 2nd support for ULS [cm]
Aufl3_Tfnw	-	required support width at 3rd support for ULS [cm]
Aufl4_Tfnw	-	required support width at 4th support for ULS [cm]
Aufl1_Gfnw	-	required support width at 1st support for SLS [cm]
Aufl2_Gfnw	-	required support width at 2nd support for SLS [cm]
Aufl3_Gfnw	-	required support width at 3rd support for SLS [cm]
Aufl4_Gfnw	-	required support width at th1st support for SLS [cm]
NSd_End	-	exist. support reaction for fixing at end support
NSd_Zw	-	exist. support reaction for fixing at interm. support

3) Allowable span tables at file „Table – *load case* – *panel name*.txt“

The allowable span tables are written as results at text-files „Table – *load case* - *panel name*.txt“, divided into the chosen load cases.

The file can be opened with the windows program WordPad or with another general word processing program like Microsoft© Word.

It is possible to copy the results into Microsoft Excel © to obtain a clear tabular presentation (separator = tabulator).

The results are written in table form with the value for load at column and the span, colour group (“FG”) and deflection information as row. The span length as results is in unit [m].

In addition to the information on the permissible span, the required support width is also written. This is especially important for the pressing load cases snow, wind pressure and "delta g". Above the span length, the required support width for the end supports is given, below the span length, the required support width for the intermediate supports is given, each in the unit [mm].

The column FG indicates the respective colour group. If a designation "(f)" is added after the colour group indication, the results in this row are with the regard of the deflection.

Consecutively the allowable span table for the example with load case snow:

→ „Table-snow-*panel name*.txt”

regarded load case:
here: snow

numeric value of the load
here s = 0,25 kN/m²

Snow - Muster-Dach/Sample-roof 140 0,63 0,50

Felder	FG	snow					
			0	0,25	0,5	0,75	1
			40	40	40	40	40
1	1(f)		9,27	8,52	7,5	5,36	4,17
			40	40	40	40	40
1	2(f)		9,27	8,52	7,5	5,36	4,17
			40	40	40	40	40
1	3(f)		9,27	8,52	7,5	5,36	4,17
			40	40	40	40	40
2	1(f)		12,88	9,35	5,62	4,02	3,13
			60	60	60	60	60
			40	40	40	40	40
2	2(f)		12,88	9,35	5,62	4,02	3,13
			60	60	60	60	60
			40	40	40	40	40
2	3(f)		12,88	9,35	5,62	4,02	3,13
			60	60	60	60	60
			40	40	40	40	40
3	1(f)		12,82	9,35	5,62	4,02	3,13
			60	60	60	60	60
			40	40	40	40	40
3	2(f)		12,83	9,35	5,62	4,02	3,13
			60	60	60	60	60
			40	40	40	40	40
3	3(f)		12,82	9,36	5,62	4,02	3,13
			60	60	60	60	60

result:

40	support width end support [cm]
9,35	span length [m]
60	support width intermediate support [cm]

number of spans
here n = 3

number = colour group as well as info on deflection
here: colour group II; deflection is taken into account

Consecutively the allowable span table for the example with load case wind pressure:

→ „Table-wind pressure-*panel name*.txt"

regarded load case:
here: wind pressure

numeric value of the load
here wd = 0,20 kN/m²

wind pressure - Muster-Dach/Sample-roof 140 0,63 0,50

Felder	FG	wind pressure					
			0	0,1	0,2	0,3	0,4
			40	40	40	40	40
1	1(f)		9,27	9,27	9,28	9,28	8,92
			40	40	40	40	40
1	2(f)		9,27	9,27	9,28	9,28	8,92
			40	40	40	40	40
1	3(f)		9,27	9,27	9,28	9,28	8,92
			40	40	40	40	40
2	1(f)		12,88	11,04	9,89	8,26	6,69
			60	60	60	60	60
			40	40	40	40	40
2	2(f)		12,88	11,04	9,89	8,26	6,69
			60	60	60	60	60
			40	40	40	40	40
2	3(f)		12,88	11,04	9,89	8,26	6,69
			60	60	60	60	60
			40	40	40	40	40
3	1(f)		12,82	12,82	10,78	8,25	6,69
			60	60	60	60	60
			40	40	40	40	40
3	2(f)		12,83	12,84	10,78	8,26	6,69
			60	60	60	60	60
			40	40	40	40	40
3	3(f)		12,82	12,83	10,78	8,26	6,69
			60	60	60	60	60

result:

40	support width end support [cm]
10,78	span length [m]
60	support width intermediate support [cm]

number of spans
here n = 3

number = colour group as well as info on deflection
here: colour group II; deflection is taken into account

Consecutively the allowable span table for the example with load case wind suction:

→ „Table-wind suction-*panel name*.txt"

regarded load case:
here: wind suction

numeric value of the load
here ws = -0,20 kN/m²

wind suction - Muster-Dach/Sample-roof 140 0,63 0,50

Felder	FG	wind suction					
			0	-0,1	-0,2	-0,3	-0,4
			40	40	40	40	40
1	1(f)		9,27	9,27	9,27	9,27	9,27
			40	40	40	40	40
1	2(f)		9,27	9,27	9,27	9,27	9,27
			40	40	40	40	40
1	3(f)		9,27	9,27	9,27	9,27	9,27
			40	40	40	40	40
2	1(f)		12,88	12,88	12,88	12,88	10,72
			60	60	60	60	60
			40	40	40	40	40
2	2(f)		12,88	12,88	12,88	12,88	10,72
			60	60	60	60	60
			40	40	40	40	40
2	3(f)		12,88	12,88	12,88	12,88	10,72
			60	60	60	60	60
			40	40	40	40	40
3	1(f)		12,82	12,82	12,82	12,82	10,72
			60	60	60	60	60
			40	40	40	40	40
3	2(f)		12,83	12,83	12,83	12,83	10,72
			60	60	60	60	60
			40	40	40	40	40
3	3(f)		12,82	12,82	12,82	12,82	10,72
			60	60	60	60	60

number of spans
here n = 3

result:

12,83	span length [m]

number = colour group as well as info on deflection
here: colour group II; deflection is staken into account

Note: for the lifting load types (wind suction), the support widths are printed in the result tables, even if they are not decisive for this load type and are not listed in the support width tables.