

Single span tests for downward load

Bacacier 18/76
Bacacier 46/150

Ultimate moment in span

test no. SSP-...	t _{cor} mm	t _{cor,obs} mm	L _v m	g kN/m ²	f _{yb} N/mm ²	f _{yb,obs} N/mm ²	L m	b _v m	F _u kN	P _{vor} kN	1/μ -	F _{u,adj} kN	F _{u,adj} /F _{u,m} -	F _{u,k} kN/m	M _{c,Rk,F} kNm/m	
18-063-1	0,523	0,523	1,90	0,063	333,7	333,7	1,50	0,456	2,75	0,00	1,000	2,750	0,9988	5,739	1,092	
18-063-2	0,523	0,523	1,90	0,063	333,7	333,7	1,50	0,456	2,69	0,00	1,000	2,690	0,9770			
18-063-3	0,523	0,523	1,90	0,063	333,7	333,7	1,50	0,456	2,82	0,00	1,000	2,820	1,0242			
18-100-1	0,943	0,943	2,40	0,099	402,0	402,0	2,00	0,456	3,87	0,00	1,000	3,870	0,9949	8,108	2,075	
18-100-2	0,943	0,943	2,40	0,099	402,0	402,0	2,00	0,456	3,91	0,00	1,000	3,910	1,0051			
18-100-3	0,943	0,943	2,40	0,099	402,0	402,0	2,00	0,456	3,89	0,00	1,000	3,890	1,0000			
46-063-1	0,520	0,520	2,40	0,067	364,3	364,3	2,00	0,900	9,51	0,00	1,000	9,510	1,0582	9,491	2,405	
46-063-2	0,520	0,520	2,40	0,067	364,3	364,3	2,00	0,900	9,03	0,00	1,000	9,030	1,0048			
46-063-3	0,520	0,520	2,40	0,067	364,3	364,3	2,00	0,900	8,70	0,00	1,000	8,700	0,9681			
46-063-4	0,520	0,520	2,40	0,067	364,3	364,3	2,00	0,900	8,48	0,00	1,000	8,480	0,9436			
46-063-5	0,520	0,520	2,40	0,067	364,3	364,3	2,00	0,900	9,17	0,00	1,000	9,170	1,0204			
46-063-6	0,520	0,520	2,40	0,067	364,3	364,3	2,00	0,900	9,03	0,00	1,000	9,030	1,0048			
46-100-1	0,933	0,933	3,40	0,106	409,0	409,0	3,00	0,900	13,57	0,00	1,000	13,570	1,0049	14,261	5,465	
46-100-2	0,933	0,933	3,40	0,106	409,0	409,0	3,00	0,900	13,40	0,00	1,000	13,400	0,9923			
46-100-3	0,933	0,933	3,40	0,106	409,0	409,0	3,00	0,900	13,54	0,00	1,000	13,540	1,0027			
number												15	s	15,000		
EC												k =	1,92	(1-k-s)	0,0258	
														0,9505		

Internal support tests for downward load

Bacacier 18/76 - 0,63

Bending moment at support, support reaction
M/R-interaction

Support width l_{aB} =	10 mm
Yield stress f_{yb} =	333,7 N/mm ²

$b_v = 0,456$ m
 $f_{yb} = 333,7$ N/mm² $g = 0,063$ kN/m² $P_{vor} = 0$ kN epsilon = 1

IS-18-10-..	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R_{Rk,B}^0$ $M_{Rk,B}^0$
63-40-1	0,523	0,523	1,500	333,7	0,400	3,57	3,570	0,9986	7,805	0,772	31,996
63-40-2	0,523	0,523	1,500	333,7	0,400	3,58	3,580	1,0014			
63-80-1	0,523	0,523	1,500	333,7	0,800	2,01	2,010	0,9975	4,399	0,881	1,021
63-80-2	0,523	0,523	1,500	333,7	0,800	2,02	2,020	1,0025			

number 16 s 0,0023
 c-value for family with 16 tests c= 1,92 (1-c-s) 0,9955

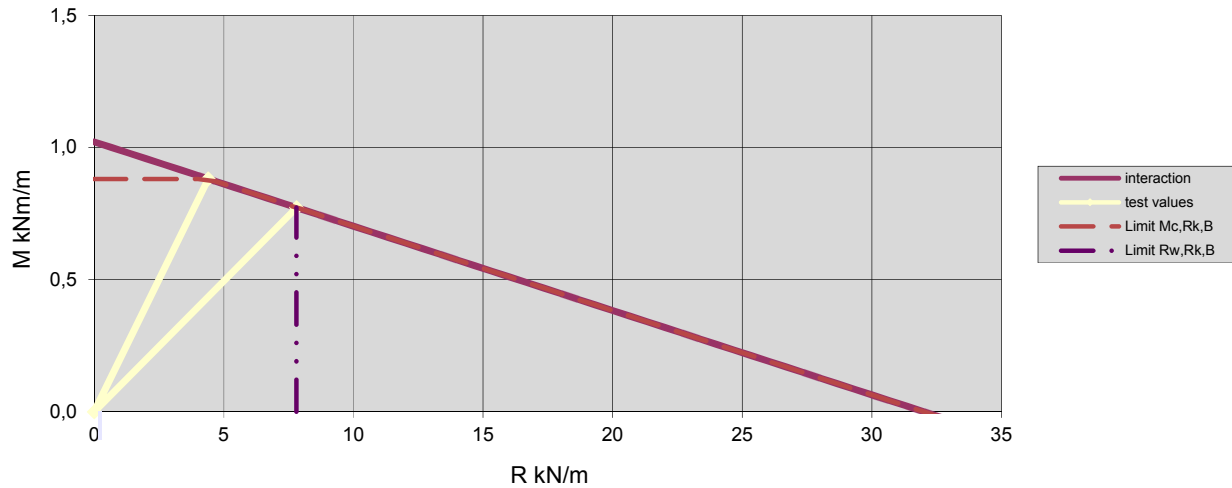
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,40	7,80	0,77
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	0,80	4,40	0,88

Used test spans no.	R(i)	M(i)
1	7,805	0,772
5	4,399	0,881

Parameter epsilon = 1			
$R_{Rk,B}^0$	31,996	$R_{w,Rk,B}$	7,805
$M_{Rk,B}^0$	1,021	$M_{c,Rk,B}$	0,881



Internal support tests for downward load

Bacacier 18/76 - 1,00

Bending moment at support, support reaction
M/R-interaction

Support width l_{aB} =	10 mm
Yield stress f_{yb} =	402,0 N/mm ²

$b_v = 0,456$ m
 $f_{yb} = 402,0$ N/mm² $g = 0,099$ kN/m² $P_{vor} = 0$ kN epsilon = 1

IS-18-10-..	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R^0_{Rk,B}$ $M^0_{Rk,B}$
100-40-1	0,943	0,943	1,500	402,0	0,400	9,32	9,320	1,0098	20,151	2,007	104,440
100-40-2	0,943	0,943	1,500	402,0	0,400	9,14	9,140	0,9902			
100-100-1	0,943	0,943	1,500	402,0	1,000	4,17	4,170	1,0048	9,060	2,271	2,487
100-100-2	0,943	0,943	1,500	402,0	1,000	4,13	4,130	0,9952			

4,0000
 number 16 s 0,0089
 c-value for family with 16 tests c= 1,92 (1-c·s) 0,9829

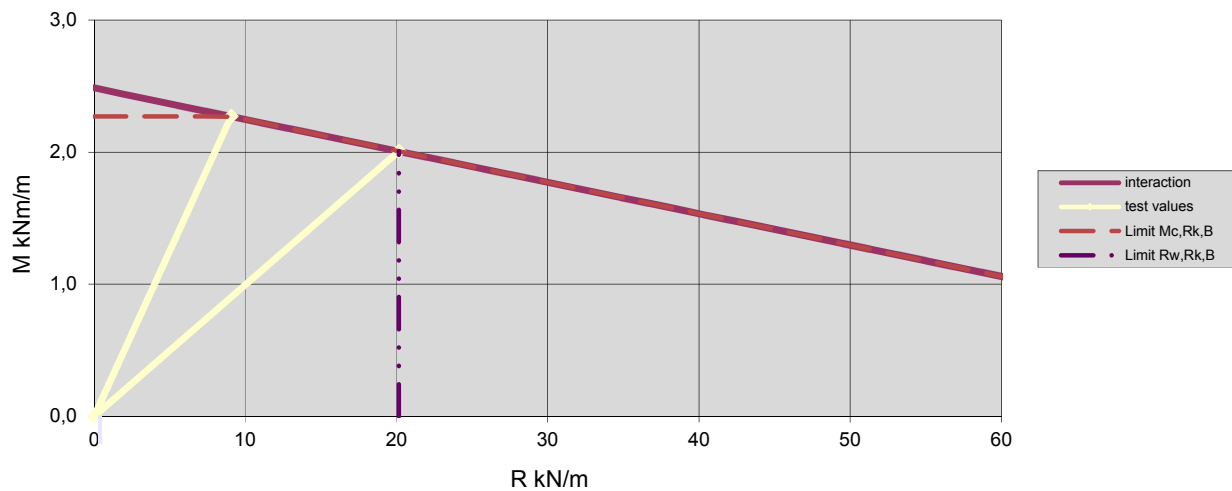
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,40	20,15	2,01
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	1,00	9,06	2,27

Used test spans no.	R(i)	M(i)
1	20,151	2,007
5	9,060	2,271

Parameter epsilon = 1			
$R^0_{Rk,B}$	104,440	$R_{w,Rk,B}$	20,151
$M^0_{Rk,B}$	2,487	$M_{c,Rk,B}$	2,271



Internal support tests for downward load

Bacacier 18/76 - 0,63

**Bending moment at support, support reaction
M/R-interaction**

Support width $l_{AB} =$	40 mm
Yield stress $f_{yb} =$	333,7 N/mm ²

$b_v = 0,456$ m
 $f_{yb} = 333,7$ N/mm² $g = 0,063$ kN/m² $P_{vor} = 0$ kN epsilon = 1

IS-18-40-..	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R^0_{Rk,B}$ $M^0_{Rk,B}$
63-40-1	0,523	0,523	1,500	333,7	0,400	4,89	4,890	1,0010	10,582	1,050	81,801
63-40-2	0,523	0,523	1,500	333,7	0,400	4,88	4,880	0,9990			
63-80-1	0,523	0,523	1,500	333,7	0,800	2,57	2,570	0,9923	5,610	1,123	1,206
63-80-2	0,523	0,523	1,500	333,7	0,800	2,61	2,610	1,0077			

4,0000
 number 16 s 0,0064
 c-value for family with 16 tests c= 1,92 (1-c-s) 0,9878

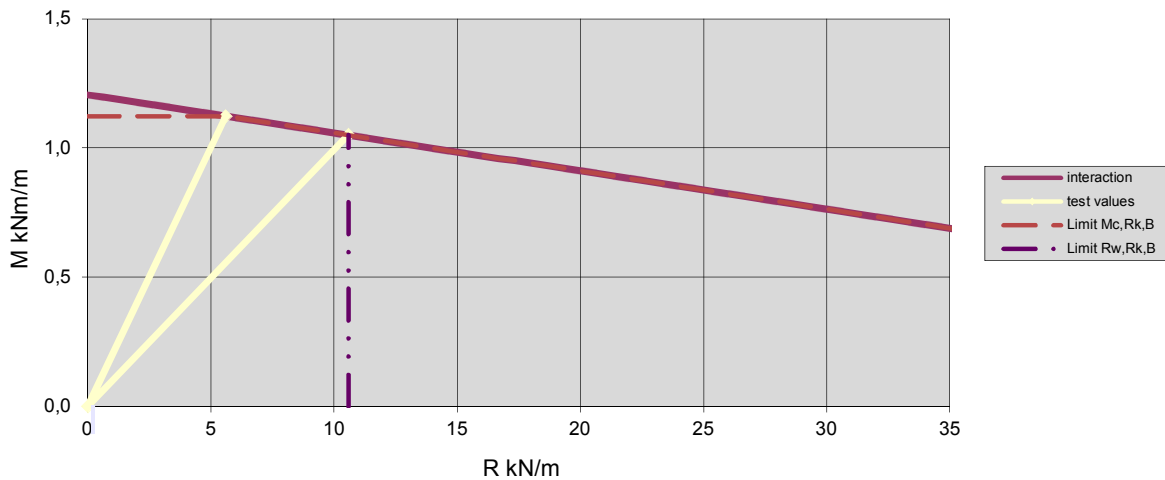
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,40	10,58	1,05
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	0,80	5,61	1,12

Used test spans no.	R(i)	M(i)
1	10,582	1,050
5	5,610	1,123

Parameter epsilon = 1			
$R^0_{Rk,B}$	81,801	$R_{w,Rk,B}$	10,582
$M^0_{Rk,B}$	1,206	$M_{c,Rk,B}$	1,123



Internal support tests for downward load

Bacacier 18/76 - 1,00

**Bending moment at support, support reaction
M/R-interaction**

Support width $l_{AB} =$	40 mm
Yield stress $f_{yb} =$	402,0 N/mm ²

$b_v = 0,456$ m
 $f_{yb} = 402,0$ N/mm² $g = 0,099$ kN/m² $P_{vor} = 0$ kN epsilon = 1

IS-18-40-..	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R^0_{Rk,B}$ $M^0_{Rk,B}$
100-40-1	0,943	0,943	1,500	402,0	0,400	11,87	11,870	0,9937	25,875	2,579	-278,944
100-40-2	0,943	0,943	1,500	402,0	0,400	12,02	12,020	1,0063			
100-100-1	0,943	0,943	1,500	402,0	1,000	4,51	4,510	1,0022	9,748	2,443	2,360
100-100-2	0,943	0,943	1,500	402,0	1,000	4,49	4,490	0,9978			

4,0000
 number 16 s 0,0054
 c-value for family with 16 tests c= 1,92 (1-c-s) 0,9896

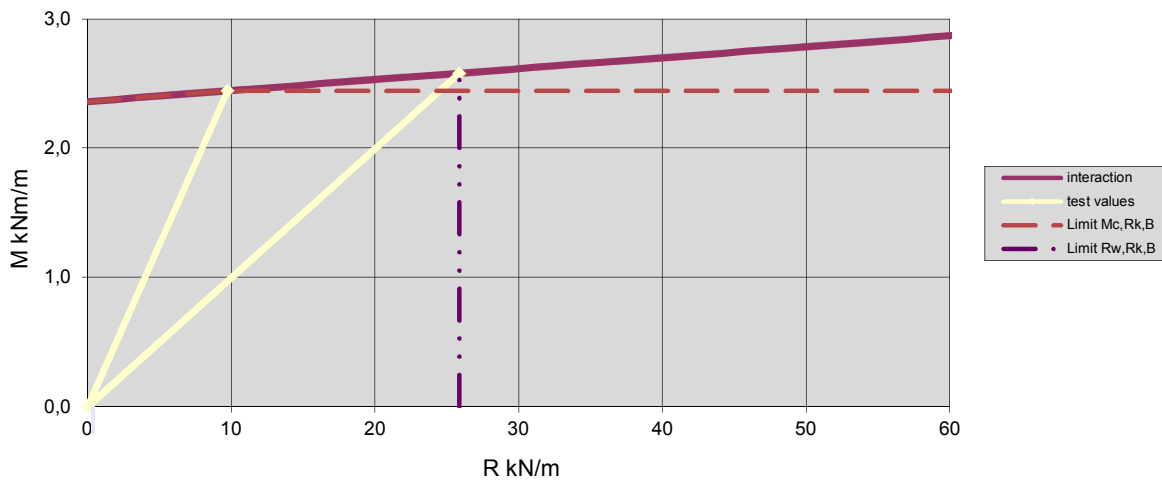
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,40	25,88	2,58
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	1,00	9,75	2,44

Used test spans no.	R(i)	M(i)
1	25,875	2,579
5	9,748	2,443

Parameter epsilon = 1			
$R^0_{Rk,B}$	-278,944	$R_{w,Rk,B}$	25,875
$M^0_{Rk,B}$	2,360	$M_{c,Rk,B}$	2,443



Internal support tests for uplift load

Bacacier 18/76 - 0,63

**Bending moment at support, support reaction
M/R-interaction**

Fixing with screws in each crest
Yield stress $f_{yb} = 333,7 \text{ N/mm}^2$

$b_v = 0,456 \text{ m}$
 $f_{yb} = 333,7 \text{ N/mm}^2$ $g = 0,063 \text{ kN/m}^2$ $P_{vor} = 0 \text{ kN}$ epsilon 1

IS-18-C-..	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R^0_{Rk,B}$ $M^0_{Rk,B}$
63-40-1	0,523	0,523	1,500	333,7	0,400	3,48	3,480	0,9986	7,519	0,744	31,220
63-40-2	0,523	0,523	1,500	333,7	0,400	3,49	3,490	1,0014			
63-80-1	0,523	0,523	1,500	333,7	0,800	1,98	1,980	1,0102	4,229	0,847	0,980
63-80-2	0,523	0,523	1,500	333,7	0,800	1,94	1,940	0,9898			

4,0000
number 16 s 0,0084
c-value for family with 16 tests c= 1,92 (1-c-s) 0,9838

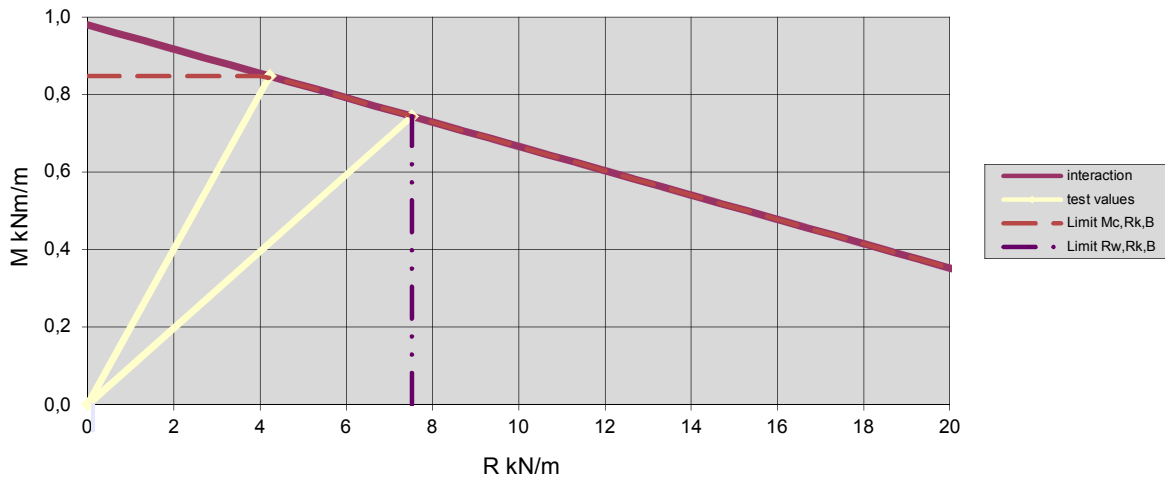
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,40	7,52	0,74
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	0,80	4,23	0,85

Used test spans no.	R(i)	M(i)
1	7,519	0,744
5	4,229	0,847

Parameter epsilon = 1			
$R^0_{Rk,B}$	31,220	$R_{w,Rk,B}$	7,519
$M^0_{Rk,B}$	0,980	$M_{c,Rk,B}$	0,847



Internal support tests for uplift load

Bacacier 18/76 - 1,00

Bending moment at support, support reaction

Fixing with screws in each crest
Yield stress $f_{yb} = 402,0 \text{ N/mm}^2$

M/R-interaction

$b_v = 0,456 \text{ m}$
 $f_{yb} = 402,0 \text{ N/mm}^2$ $g = 0,099 \text{ kN/m}^2$ $P_{vor} = 0 \text{ kN}$ epsilon 1

IS-18-C-...	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R_{Rk,B}^0$ $M_{Rk,B}^0$
100-40-1	0,943	0,943	1,500	402,0	0,400	8,90	8,900	1,0201	18,825	1,874	94,171
100-40-2	0,943	0,943	1,500	402,0	0,400	8,55	8,550	0,9799			
100-100-1	0,943	0,943	1,500	402,0	1,000	3,95	3,950	1,0025	8,501	2,131	2,343
100-100-2	0,943	0,943	1,500	402,0	1,000	3,93	3,930	0,9975			

4,0000
number 16 s 0,0165
c-value for family with 16 tests c= 1,92 (1-c-s) 0,9683

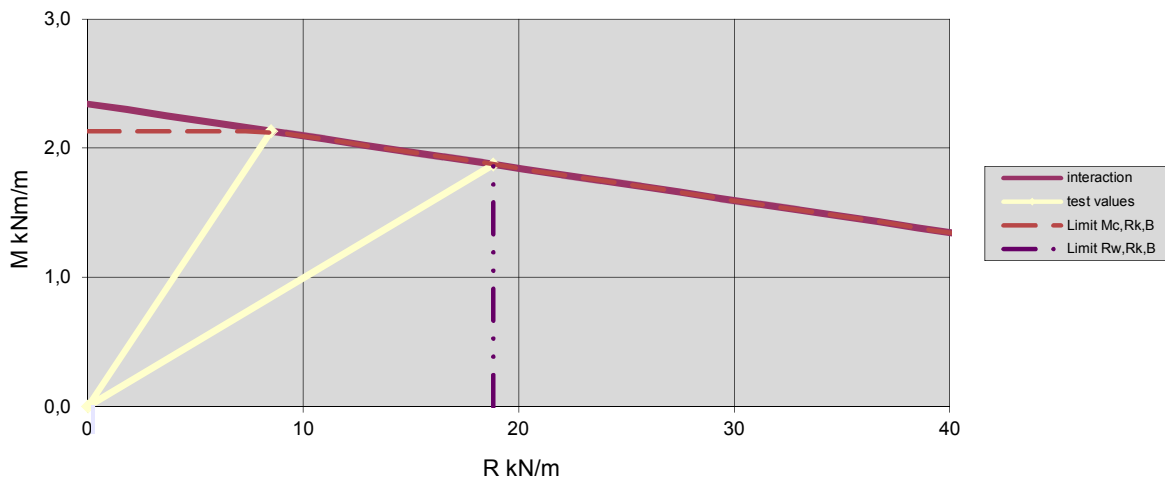
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,40	18,82	1,87
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	1,00	8,50	2,13

Used test spans no.	R(i)	M(i)
1	18,825	1,874
5	8,501	2,131

Parameter epsilon = 1			
$R_{Rk,B}^0$	94,171	$R_{w,Rk,B}$	18,825
$M_{Rk,B}^0$	2,343	$M_{c,Rk,B}$	2,131



Internal support tests for uplift load

Bacacier 18/76 - 0,63

**Bending moment at support, support reaction
M/R-interaction**

Fixing with screws in each valley
Yield stress $f_{yb} = 333,7 \text{ N/mm}^2$

$b_v = 0,456 \text{ m}$
 $f_{yb} = 333,7 \text{ N/mm}^2$ $g = 0,063 \text{ kN/m}^2$ $P_{vor} = 0 \text{ kN}$ epsilon 1

IS-18-V-..	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R^0_{Rk,B}$ $M^0_{Rk,B}$
63-40-1	0,523	0,523	1,500	333,7	0,400	5,41	5,410	1,0122	11,407	1,132	-89,316
63-40-2	0,523	0,523	1,500	333,7	0,400	5,28	5,280	0,9878			
63-80-1	0,523	0,523	1,500	333,7	0,800	2,52	2,520	1,0120	5,314	1,064	1,004
63-80-2	0,523	0,523	1,500	333,7	0,800	2,46	2,460	0,9880			

4,0000
number 16 s 0,0140
c-value for family with 16 tests c= 1,92 (1-c-s) 0,9732

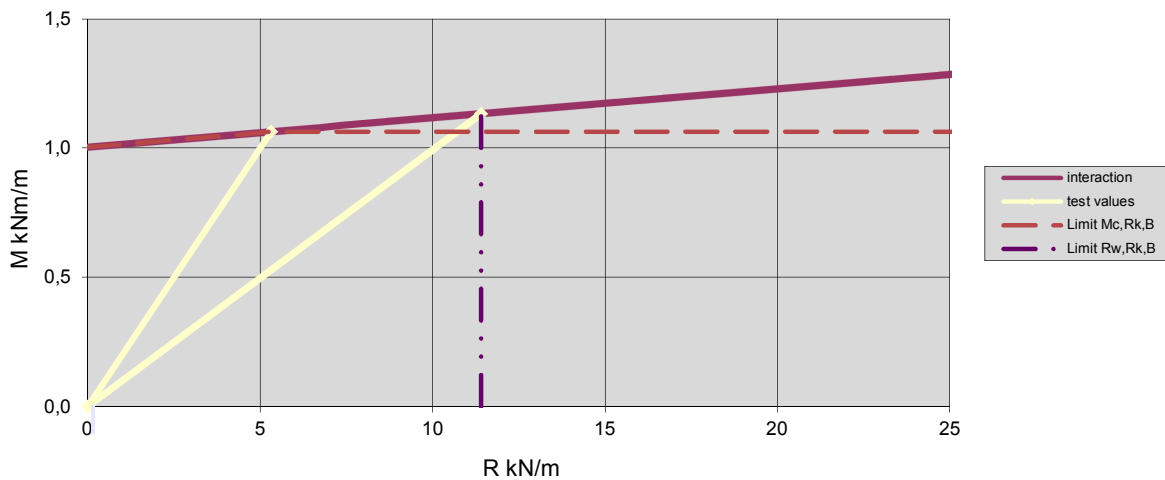
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,40	11,41	1,13
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	0,80	5,31	1,06

Used test spans no.	R(i)	M(i)
1	11,407	1,132
5	5,314	1,064

Parameter epsilon = 1			
$R^0_{Rk,B}$	-89,316	$R_{w,Rk,B}$	11,407
$M^0_{Rk,B}$	1,004	$M_{c,Rk,B}$	1,064



Internal support tests for uplift load

Bacacier 18/76 - 1,00

**Bending moment at support, support reaction
M/R-interaction**

Fixing with screws in each valley
Yield stress $f_{yb} = 402,0 \text{ N/mm}^2$

$b_v = 0,456 \text{ m}$
 $f_{yb} = 402,0 \text{ N/mm}^2$ $g = 0,099 \text{ kN/m}^2$ $P_{vor} = 0 \text{ kN}$ epsilon 1

IS-18-V-..	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R^0_{Rk,B}$ $M^0_{Rk,B}$
100-40-1	0,943	0,943	1,500	402,0	0,400	10,87	10,870	0,9913	23,401	2,332	-443,662
100-40-2	0,943	0,943	1,500	402,0	0,400	11,06	11,060	1,0087			
100-100-1	0,943	0,943	1,500	402,0	1,000	4,24	4,240	1,0036	9,017	2,260	2,215
100-100-2	0,943	0,943	1,500	402,0	1,000	4,21	4,210	0,9964			

4,0000
number 16 s 0,0076
c-value for family with 16 tests c= 1,92 (1-c-s) 0,9853

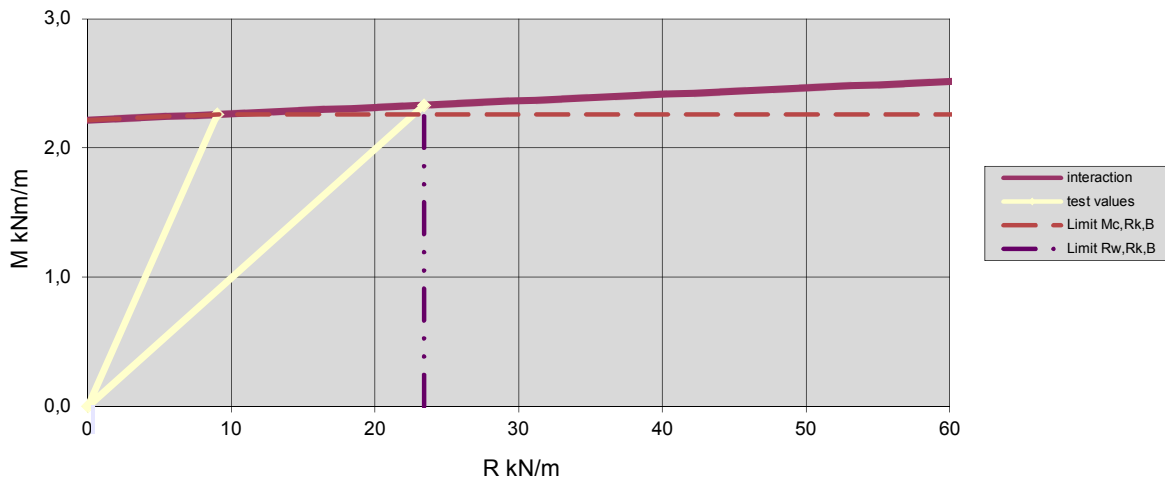
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,40	23,40	2,33
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	1,00	9,02	2,26

Used test spans no.	R(i)	M(i)
1	23,401	2,332
5	9,017	2,260

Parameter epsilon = 1			
$R^0_{Rk,B}$	-443,662	$R_{w,Rk,B}$	23,401
$M^0_{Rk,B}$	2,215	$M_{c,Rk,B}$	2,260



Internal support tests for downward load

Bacacier 46/150 - 0,63

**Bending moment at support, support reaction
M/R-interaction**

Support width $l_{AB} =$	10 mm
Yield stress $f_{yb} =$	364,3 N/mm ²

$b_v = 0,900$ m
 $f_{yb} = 364,3$ N/mm² $g = 0,067$ kN/m² $P_{vor} = 0$ kN epsilon = 1

IS-46-10-..	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R^0_{Rk,B}$ $M^0_{Rk,B}$
63-60-1	0,520	0,520	1,500	364,3	0,600	5,95	5,950	1,0017	6,549	0,979	14,258
63-60-2	0,520	0,520	1,500	364,3	0,600	5,93	5,930	0,9983			
63-100-1	0,520	0,520	1,500	364,3	1,000	4,32	4,320	0,9954	4,785	1,203	1,810
63-100-2	0,520	0,520	1,500	364,3	1,000	4,36	4,360	1,0046			

4,0000
 number 16 s 0,0040
 c-value for family with 16 tests c= 1,92 (1-c-s) 0,9923

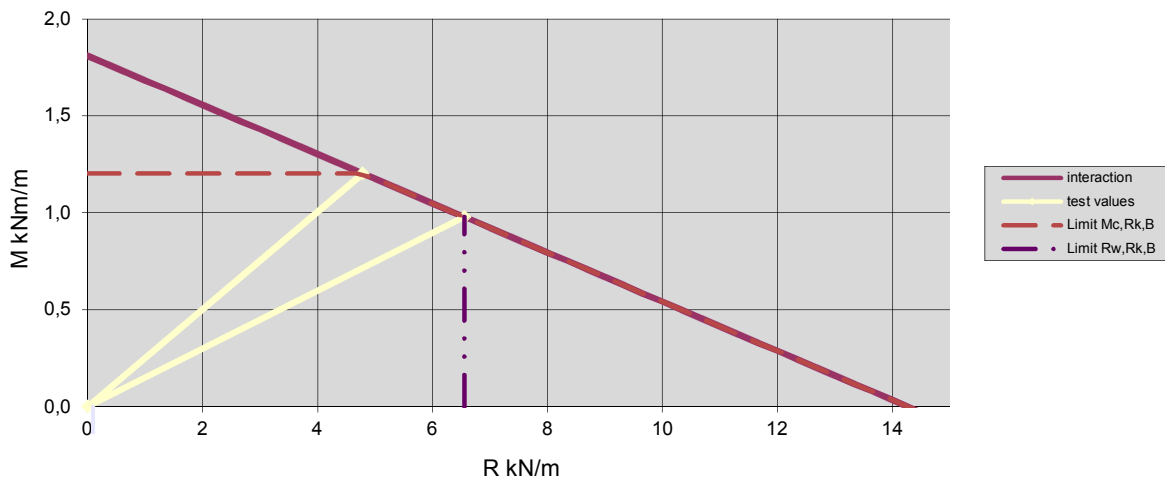
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,60	6,55	0,98
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	1,00	4,79	1,20

Used test spans no.	R(i)	M(i)
1	6,549	0,979
5	4,785	1,203

Parameter epsilon = 1			
$R^0_{Rk,B}$	14,258	$R_{w,Rk,B}$	6,549
$M^0_{Rk,B}$	1,810	$M_{c,Rk,B}$	1,203



Internal support tests for downward load

Bacacier 46/150 - 1,00

**Bending moment at support, support reaction
M/R-interaction**

Support width $l_{AB} =$	10 mm
Yield stress $f_{yb} =$	409,0 N/mm ²

$b_v = 0,900$ m
 $f_{yb} = 409,0$ N/mm² $g = 0,106$ kN/m² $P_{vor} = 0$ kN epsilon = 1

IS-46-10-..	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R^0_{Rk,B}$ $M^0_{Rk,B}$
100-60-1	0,933	0,933	1,500	409,0	0,600	18,08	18,080	0,9907	20,122	3,015	52,044
100-60-2	0,933	0,933	1,500	409,0	0,600	18,42	18,420	1,0093			
100-120-1	0,933	0,933	1,500	409,0	1,200	11,29	11,290	1,0013	12,431	3,741	4,915
100-120-2	0,933	0,933	1,500	409,0	1,200	11,26	11,260	0,9987			

4,0000
 number 16 s 0,0077
 c-value for family with 16 tests c= 1,92 (1-c-s) 0,9852

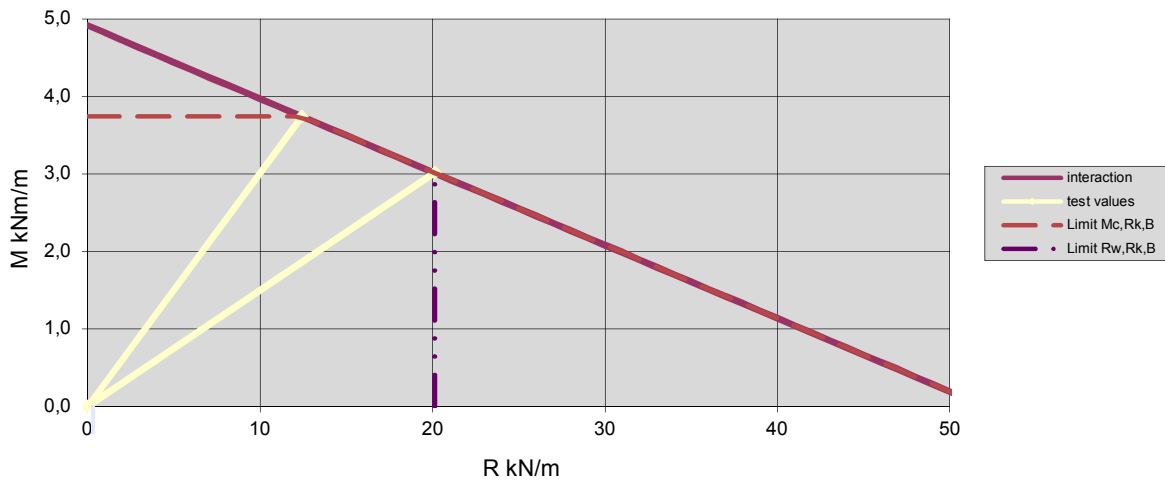
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,60	20,12	3,01
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	1,20	12,43	3,74

Used test spans no.	R(i)	M(i)
1	20,122	3,015
5	12,431	3,741

Parameter epsilon = 1			
$R^0_{Rk,B}$	52,044	$R_{w,Rk,B}$	20,122
$M^0_{Rk,B}$	4,915	$M_{c,Rk,B}$	3,741



Internal support tests for downward load

Bacacier 46/150 - 0,63

**Bending moment at support, support reaction
M/R-interaction**

Support width $l_{AB} =$	40 mm
Yield stress $f_{yb} =$	364,3 N/mm ²

$b_v = 0,900$ m
 $f_{yb} = 364,3$ N/mm² $g = 0,067$ kN/m² $P_{vor} = 0$ kN epsilon = 1

IS-46-40-..	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R^0_{Rk,B}$ $M^0_{Rk,B}$
63-60-1	0,520	0,520	1,500	364,3	0,600	6,90	6,900	0,9787	7,311	1,093	20,825
63-60-2	0,520	0,520	1,500	364,3	0,600	7,20	7,200	1,0213			
63-100-1	0,520	0,520	1,500	364,3	1,000	4,71	4,710	0,9632	5,071	1,274	1,684
63-100-2	0,520	0,520	1,500	364,3	1,000	5,07	5,070	1,0368			

4,0000
 number 16 s 0,0347
 c-value for family with 16 tests c= 1,92 (1-c-s) 0,9333

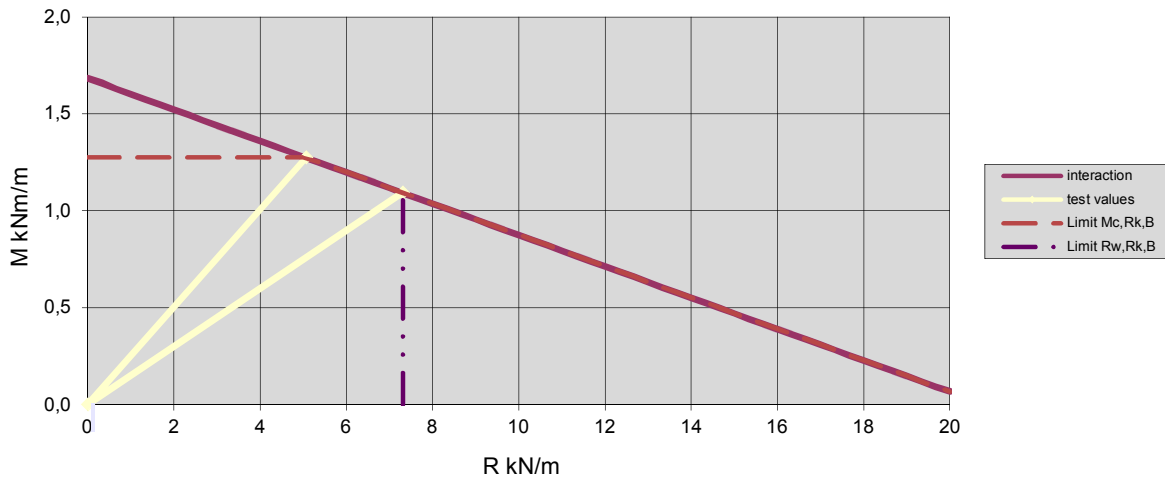
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,60	7,31	1,09
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	1,00	5,07	1,27

Used test spans no.	R(i)	M(i)
1	7,311	1,093
5	5,071	1,274

Parameter epsilon = 1			
$R^0_{Rk,B}$	20,825	$R_{w,Rk,B}$	7,311
$M^0_{Rk,B}$	1,684	$M_{c,Rk,B}$	1,274



Internal support tests for downward load

Bacacier 46/150 - 1,00

**Bending moment at support, support reaction
M/R-interaction**

Support width $l_{AB} =$	40 mm
Yield stress $f_{yb} =$	409,0 N/mm ²

$b_v = 0,900$ m
 $f_{yb} = 409,0$ N/mm² $g = 0,106$ kN/m² $P_{vor} = 0$ kN epsilon = 1

IS-46-40-..	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R^0_{Rk,B}$ $M^0_{Rk,B}$
100-60-1	0,933	0,933	1,500	409,0	0,600	21,74	21,740	1,0065	22,400	3,356	78,139
100-60-2	0,933	0,933	1,500	409,0	0,600	21,46	21,460	0,9935			
100-120-1	0,933	0,933	1,500	409,0	1,200	12,53	12,530	0,9972	13,031	3,920	4,705
100-120-2	0,933	0,933	1,500	409,0	1,200	12,60	12,600	1,0028			

4,0000
 number 16 s 0,0058
 c-value for family with 16 tests c= 1,92 (1-c-s) 0,9889

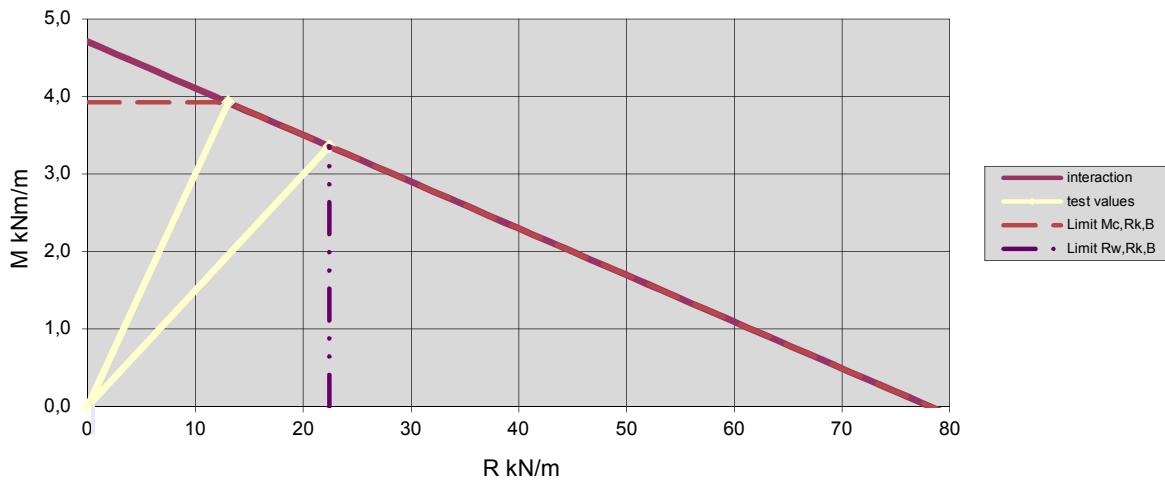
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,60	22,40	3,36
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	1,20	13,03	3,92

Used test spans no.	R(i)	M(i)
1	22,400	3,356
5	13,031	3,920

Parameter epsilon = 1			
$R^0_{Rk,B}$	78,139	$R_{w,Rk,B}$	22,400
$M^0_{Rk,B}$	4,705	$M_{c,Rk,B}$	3,920



Internal support tests for uplift load

Bacacier 46/150 - 0,63

**Bending moment at support, support reaction
M/R-interaction**

Fixing with screws in each crest
Yield stress $f_{yb} = 364,3 \text{ N/mm}^2$

$b_v = 0,900 \text{ m}$
 $f_{yb} = 364,3 \text{ N/mm}^2$ $g = 0,067 \text{ kN/m}^2$ $P_{vor} = 0 \text{ kN}$ epsilon 1

IS-46-C-..	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R^0_{Rk,B}$ $M^0_{Rk,B}$
63-60-1	0,520	0,520	1,500	364,3	0,600	5,18	5,180	0,9764	5,644	0,843	15,164
63-60-2	0,520	0,520	1,500	364,3	0,600	5,43	5,430	1,0236			
63-100-1	0,520	0,520	1,500	364,3	1,000	3,66	3,660	0,9865	3,947	0,993	1,342
63-100-2	0,520	0,520	1,500	364,3	1,000	3,76	3,760	1,0135			

4,0000
number 16 s 0,0222
c-value for family with 16 tests c= 1,92 (1-c-s) 0,9574

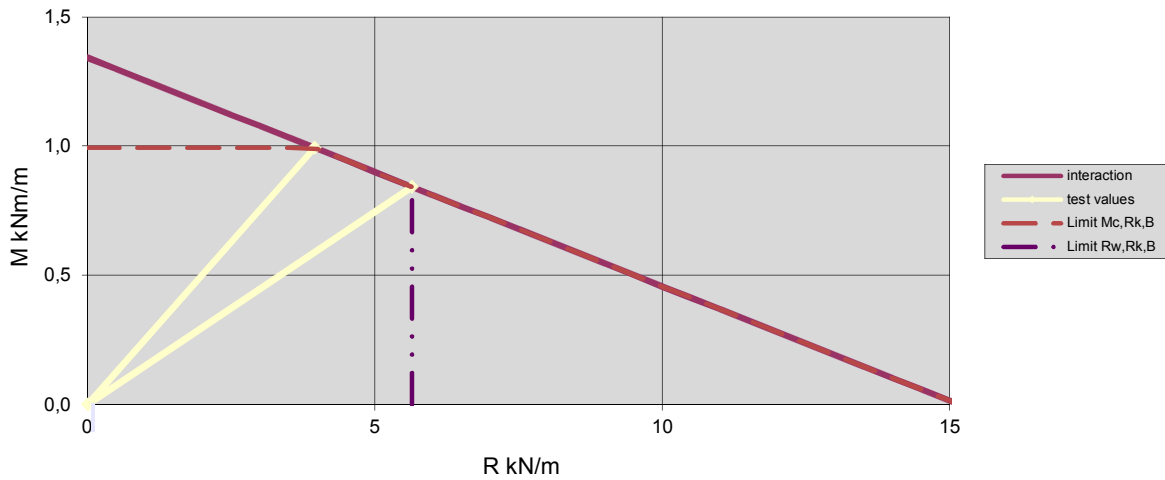
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,60	5,64	0,84
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	1,00	3,95	0,99

Used test spans no.	R(i)	M(i)
1	5,644	0,843
5	3,947	0,993

Parameter epsilon = 1			
$R^0_{Rk,B}$	15,164	$R_{w,Rk,B}$	5,644
$M^0_{Rk,B}$	1,342	$M_{c,Rk,B}$	0,993



Internal support tests for uplift load

Bacacier 46/150 - 1,00

**Bending moment at support, support reaction
M/R-interaction**

Fixing with screws in each crest
Yield stress $f_{yb} = 409,0 \text{ N/mm}^2$

$b_v = 0,900 \text{ m}$
 $f_{yb} = 409,0 \text{ N/mm}^2$ $g = 0,106 \text{ kN/m}^2$ $P_{vor} = 0 \text{ kN}$ epsilon 1

IS-46-C-..	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R^0_{Rk,B}$ $M^0_{Rk,B}$
100-90-1	0,933	0,933	1,500	409,0	0,900	12,71	12,710	0,9891	13,670	3,080	34,390
100-90-2	0,933	0,933	1,500	409,0	0,900	12,99	12,990	1,0109			
100-140-1	0,933	0,933	1,500	409,0	1,400	9,92	9,920	1,0328	10,218	3,593	5,111
100-140-2	0,933	0,933	1,500	409,0	1,400	9,29	9,290	0,9672			

4,0000
number 16 s 0,0282
c-value for family with 16 tests c= 1,92 (1-c-s) 0,9458

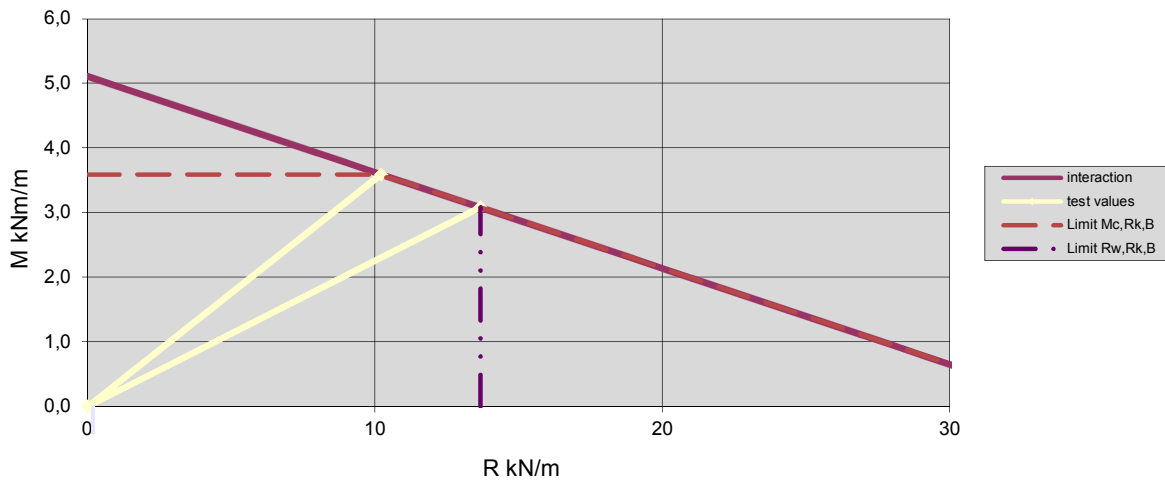
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,90	13,67	3,08
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	1,40	10,22	3,59

Used test spans no.	R(i)	M(i)
1	13,670	3,080
5	10,218	3,593

Parameter epsilon = 1			
$R^0_{Rk,B}$	34,390	$R_{w,Rk,B}$	13,670
$M^0_{Rk,B}$	5,111	$M_{c,Rk,B}$	3,593



Internal support tests for uplift load

Bacacier 46/150 - 0,63

**Bending moment at support, support reaction
M/R-interaction**

Fixing with screws in each valley
Yield stress $f_{yb} = 364,3 \text{ N/mm}^2$

$b_v = 0,900 \text{ m}$
 $f_{yb} = 364,3 \text{ N/mm}^2$ $g = 0,067 \text{ kN/m}^2$ $P_{vor} = 0 \text{ kN}$ epsilon 1

IS-46-V-..	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R^0_{Rk,B}$ $M^0_{Rk,B}$
63-60-1	0,520	0,520	1,500	364,3	0,600	14,17	14,170	0,9868	15,624	2,340	635,800
63-60-2	0,520	0,520	1,500	364,3	0,600	14,55	14,550	1,0132			
63-100-1	0,520	0,520	1,500	364,3	1,000	8,66	8,660	0,9994	9,428	2,363	2,399
63-100-2	0,520	0,520	1,500	364,3	1,000	8,67	8,670	1,0006			

4,0000
number 16 s 0,0108
c-value for family with 16 tests c= 1,92 (1-c-s) 0,9792

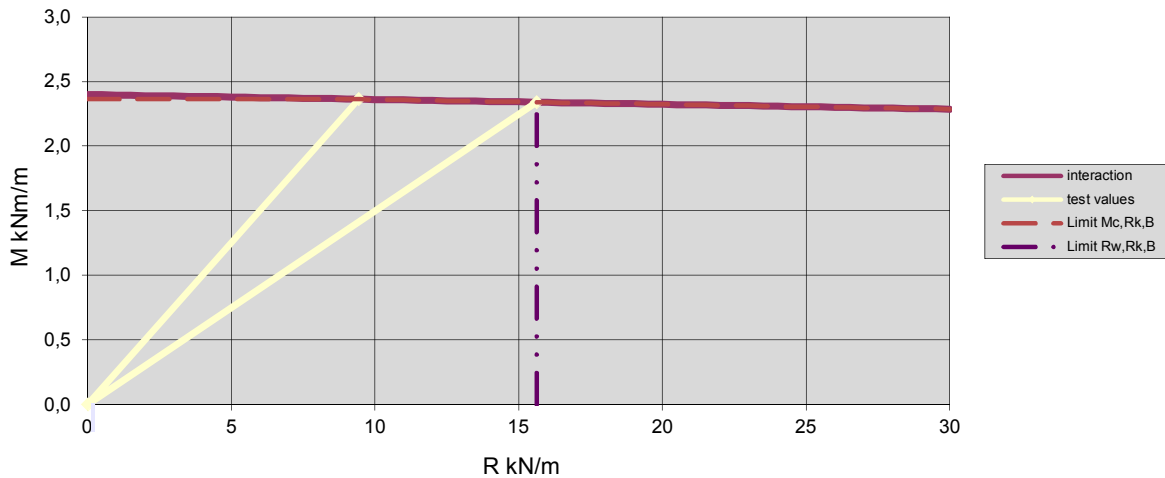
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,60	15,62	2,34
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	1,00	9,43	2,36

Used test spans no.	R(i)	M(i)
1	15,624	2,340
5	9,428	2,363

Parameter epsilon = 1			
$R^0_{Rk,B}$	635,800	$R_{w,Rk,B}$	15,624
$M^0_{Rk,B}$	2,399	$M_{c,Rk,B}$	2,363



Internal support tests for uplift load

Bacacier 46/150 - 1,00

**Bending moment at support, support reaction
M/R-interaction**

Fixing with screws in each valley
Yield stress $f_{yb} = 409,0 \text{ N/mm}^2$

$b_v = 0,900 \text{ m}$
 $f_{yb} = 409,0 \text{ N/mm}^2$ $g = 0,106 \text{ kN/m}^2$ $P_{vor} = 0 \text{ kN}$ epsilon 1

IS-46-V-..	t_{cor} mm	$t_{cor,obs}$ mm	L_V m	$f_{yb,obs}$ N/mm ²	L_E m	F_u kN	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m	$R^0_{Rk,B}$ $M^0_{Rk,B}$
100-90-1	0,933	0,933	1,500	409,0	0,900	21,96	21,960	0,9890	24,160	5,440	272,884
100-90-2	0,933	0,933	1,500	409,0	0,900	22,45	22,450	1,0110			
100-140-1	0,933	0,933	1,500	409,0	1,400	14,84	14,840	1,0088	16,005	5,618	5,968
100-140-2	0,933	0,933	1,500	409,0	1,400	14,58	14,580	0,9912			

4,0000
number 16 s 0,0115
c-value for family with 16 tests c= 1,92 (1-c-s) 0,9778

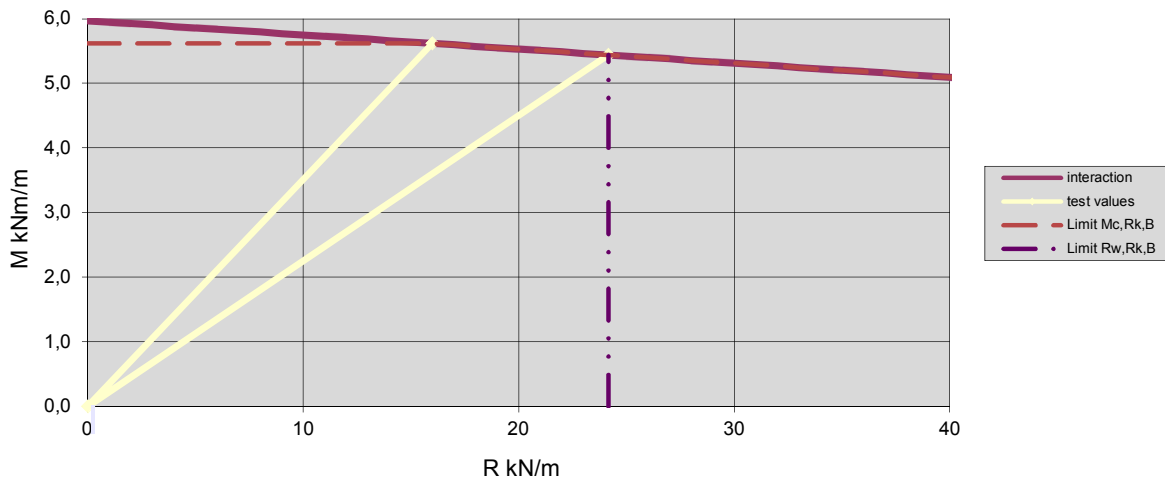
M/R-interaction

(test spans no. 2, 3 and 4 are not used)

data from test evaluation			
Nr	L m	$R_{w,Rk,B}$ kN/m	$M_{c,Rk,B}$ kNm/m
1	0,90	24,16	5,44
2	0,00	0,00	0,00
3	0,00	0,00	0,00
4	0,00	0,00	0,00
5	1,40	16,01	5,62

Used test spans no.	R(i)	M(i)
1	24,160	5,440
5	16,005	5,618

Parameter epsilon = 1			
$R^0_{Rk,B}$	272,884	$R_{w,Rk,B}$	24,160
$M^0_{Rk,B}$	5,968	$M_{c,Rk,B}$	5,618



End support tests for downward load

Bacacier 18/76
Bacacier 46/150

Support reaction at end supports
Shear resistance

Support width $l_{b,A}$ =	0 mm
Overhang c =	40 mm

ES-Q-..	t_{cor} mm	$t_{cor,obs}$ mm	f_{yb} N/mm ²	$f_{yb,obs}$ N/mm ²	l_E m	b_V m	F_u kN	P_{vor} kN	$1/\mu$ -	$F_{u,adj}$ kN	$F_{u,adj}/F_{u,M}$ -	$F_{u,k}$ kN/m	a mm	b mm	$R_{w,Rk,A}$ kN/m
18-63-100-2	0,523	0,523	333,7	333,7	1,00	0,456	10,07	0,00	1,000	10,070	1,0237	20,147	100	0	18,132
18-63-100-3	0,523	0,523	333,7	333,7	1,00	0,456	9,81	0,00	1,000	9,810	0,9973				
18-63-100-4	0,523	0,523	333,7	333,7	1,00	0,456	9,63	0,00	1,000	9,630	0,9790				
18-100-100-2	0,943	0,943	402,0	402,0	1,00	0,456	23,06	0,00	1,000	23,060	1,0602	44,547	100	0	40,092
18-100-100-3	0,943	0,943	402,0	402,0	1,00	0,456	22,05	0,00	1,000	22,050	1,0138				
18-100-100-4	0,943	0,943	402,0	402,0	1,00	0,456	20,14	0,00	1,000	20,140	0,9260				
46-63-105-1	0,520	0,520	364,3	364,3	1,05	0,900	14,36	0,00	1,000	14,360	0,9633	15,469	150	0	13,259
46-63-105-2	0,520	0,520	364,3	364,3	1,05	0,900	14,65	0,00	1,000	14,650	0,9828				
46-63-105-3	0,520	0,520	364,3	364,3	1,05	0,900	15,71	0,00	1,000	15,710	1,0539				
46-100-105-1	0,933	0,933	409,0	409,0	1,05	0,900	44,83	0,00	1,000	44,830	1,0173	45,729	150	0	39,196
46-100-105-2	0,933	0,933	409,0	409,0	1,05	0,900	43,40	0,00	1,000	43,400	0,9849				
46-100-105-3	0,933	0,933	409,0	409,0	1,05	0,900	43,97	0,00	1,000	43,970	0,9978				
S-18-63-100-1	0,523	0,523	333,7	333,7	1,00	0,456	9,96	0,00	1,000	9,960	1,0000	20,399	80	0	18,767
S-46-63-100-1	0,520	0,520	364,3	364,3	1,00	0,900	18,27	0,00	1,000	18,270	1,0000	18,959	115	0	16,779

number 14
EC c= 1,92 (1-c*s) 0,9339