

GRAPHICS

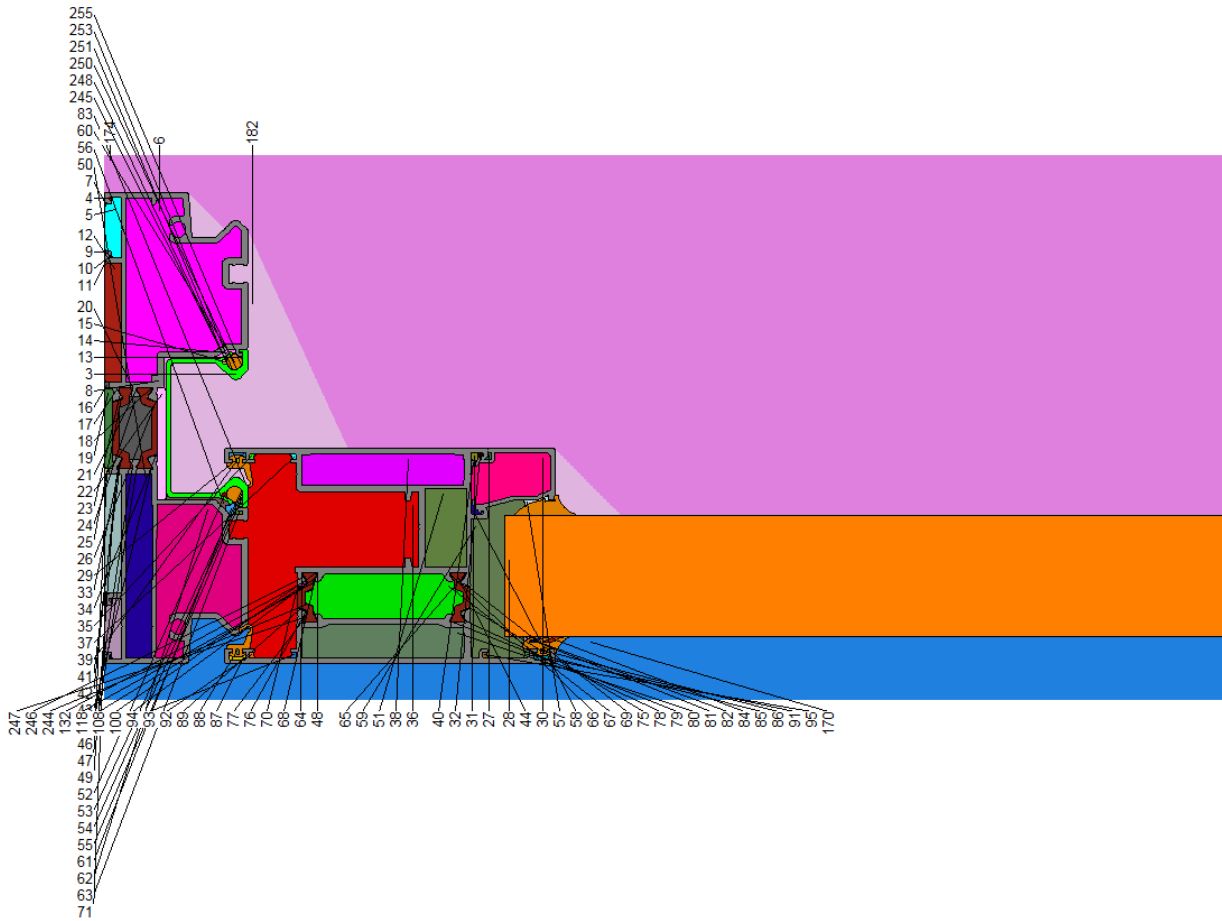


Figure 1. Frame section (with colour numbers)

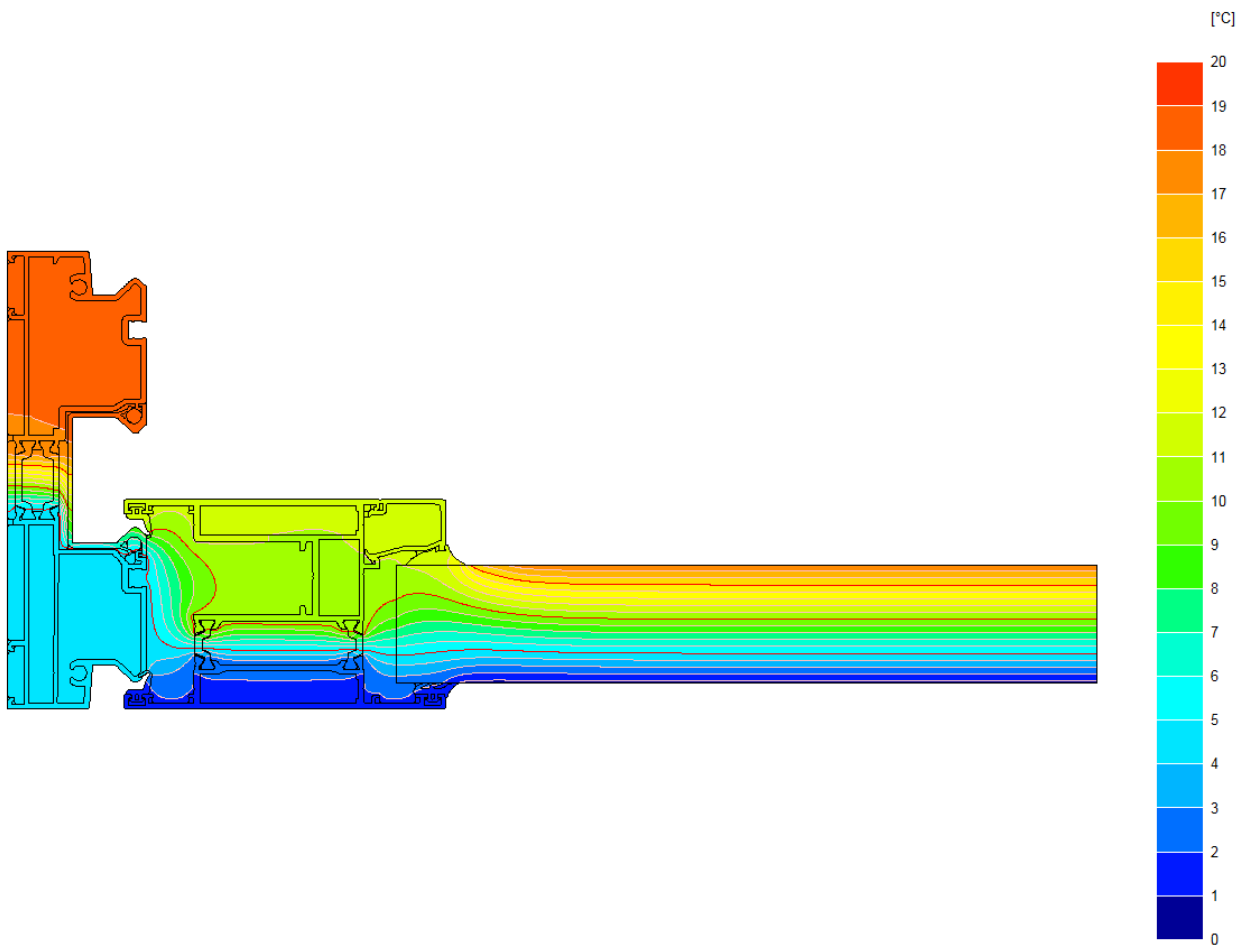


Figure 2. Isotherms (colour increment of 1°C, line increments of 1°C and 5°C)

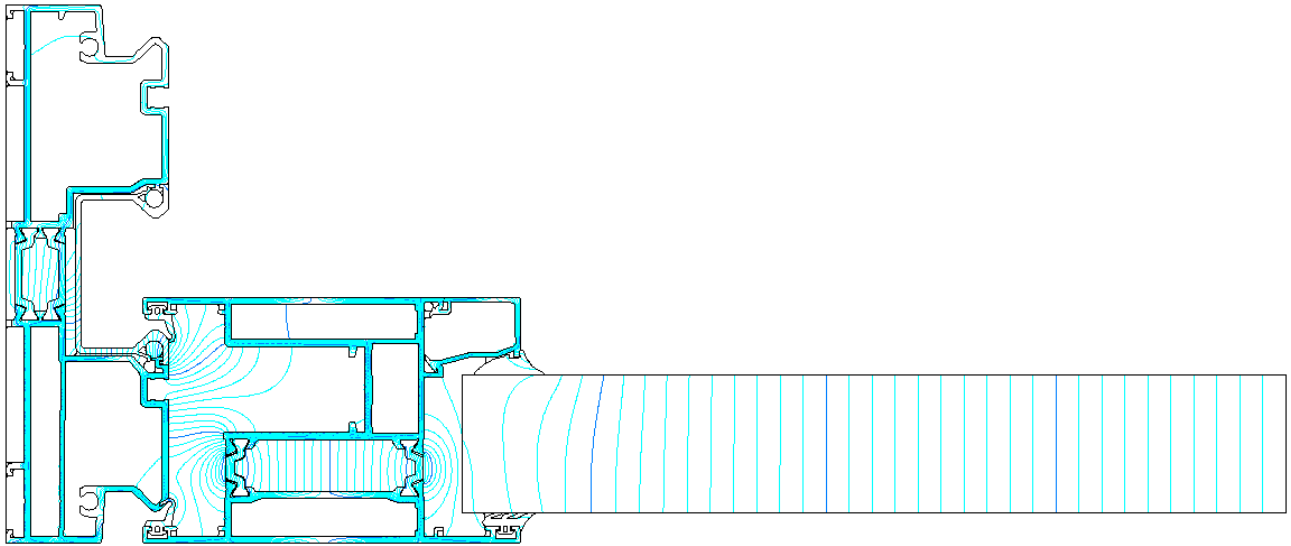


Figure 3. Heat flow lines (increment 0.1 W/m).

BISCO DATA SUMMARY

BISCO data file name **bisco_temp.tif.bsc**
 Bitmap file name **bisco_temp.tif.bmp**
 Pixel width **0.0001 m**
 Triangulation size **5 pixels**
 Number of nodes **83744**

Material thermal conductivity table

Col.	Name	lambda [W/mK]	eps [-]
3	PVC rigid	0.170	
8	aluminium	160.000	
28	insulation	0.035	
44	polyamid reinf.	0.300	
48		1.000	
60	EPDM	0.250	
68		1.000	
83		1.000	
89		1.000	
94		1.000	
100	polyisobutylene	0.200	
108		1.000	
118		1.000	
132		1.000	
244	cavity <10x10 mm2	0.055	
245	cavity <9x9 mm2	0.052	

246	cavity <8x8 mm2	0.049
247	cavity <7x7 mm2	0.046
248	cavity <6x6 mm2	0.043
249	cavity <5x5 mm2	0.040
250	cavity <4x4 mm2	0.037
251	cavity <3x3 mm2	0.034
252	cavity <2x2 mm2	0.031
253	cavity <1x1 mm2	0.028
254	cavity in metal	0.200
255		1.000

Boundary condition table

Col.	Name	t [-C]	h [W/m ² K]	q [W/m ²]
170	exterior	0.0	25.00	0
174	interior (normal)	20.0	7.70	0
182	interior (reduced)	20.0	5.00	0

Cavity equivalent thermal conductivity table

Col. lambda	lambda [W/mK]	Col. lambda	lambda [W/mK]	Col. lambda	lambda [W/mK]	Col. lambda	lambda [W/mK]
4	0.028	5	0.068	6	0.162	7	0.028
9	0.028	10	0.028	11	0.028	12	0.112
13	0.027	14	0.037	15	0.030	16	0.031
17	0.028	18	0.027	19	0.076	20	0.026
21	0.026	22	0.037	23	0.026	24	0.076
25	0.027	26	0.027	27	0.029	29	0.032
30	0.070	31	0.031	32	0.029	33	0.027
34	0.027	35	0.029	36	0.177	37	0.029
38	0.060	39	0.029	40	0.029	41	0.025
42	0.027	43	0.027	45	0.026	46	0.026
47	0.030	49	0.100	50	0.143	51	0.087
52	0.029	53	0.026	54	0.025	55	0.027
56	0.031	57	0.031	58	0.033	59	0.146
61	0.033	62	0.123	63	0.029	64	0.027
65	0.027	66	0.026	67	0.070	69	0.028
70	0.028	71	0.028	72	0.028	73	0.063
74	0.027	75	0.028	76	0.028	77	0.027
78	0.027	79	0.026	80	0.059	81	0.028
82	0.028	84	0.029	85	0.031	86	0.028
87	0.031	88	0.029	90	0.027	91	0.029
92	0.029	93	0.029	95	0.029	96	0.028

BISCO MAIN RESULTS

U-value of frame **4.412 W/(m².K)**

Width of frame **0.1341 m**

U-value of panel 1 **0.834 W/(m².K)**

Width of panel 1 **0.1997 m**

Frame thermal transmittance calculation table

Thermal transmittance of frame (EN 10077-2)

$U_f = (Q / (t_i - t_e) - U_{p1} \cdot w_{p1} - U_{p2} \cdot w_{p2}) / w_f = 4.412 \text{ W}/(\text{m}^2 \cdot \text{K})$

$Q = 15.166 \text{ W}/\text{m}$

$t_i = 20.00^\circ\text{C}$

$t_e = 0.00^\circ\text{C}$

$U_{p1} = 0.834 \text{ W}/(\text{m}^2 \cdot \text{K})$ (right edge of bitmap)

$w_{p1} = 0.1997 \text{ m}$ (distance no. 2)

Up2 = 0.000 W/(m².K)
wp2 = 0.0000 m
wf = 0.1341 m (distance no. 1)