## GRAPHICS

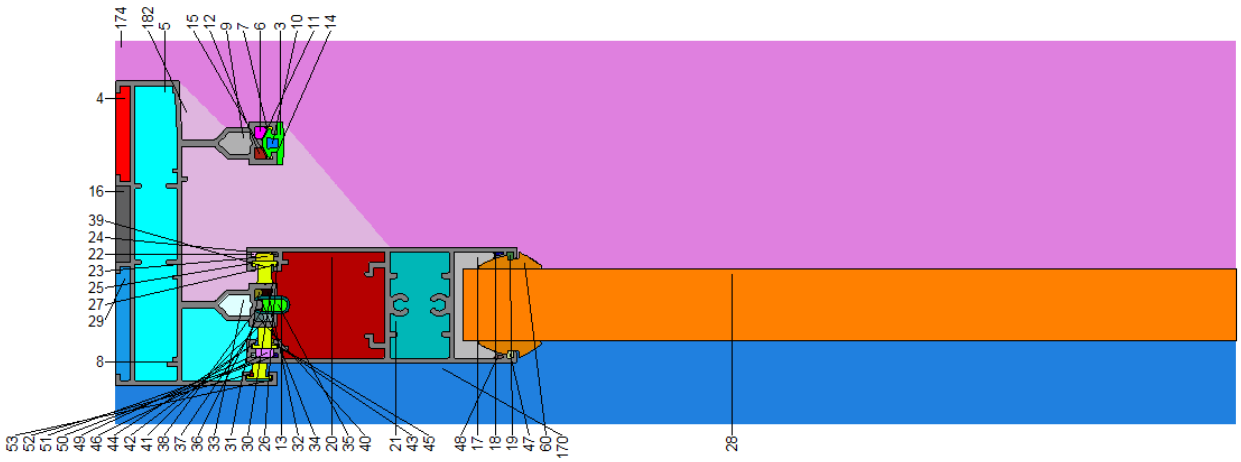


Figure 1. Frame section (with colour numbers)

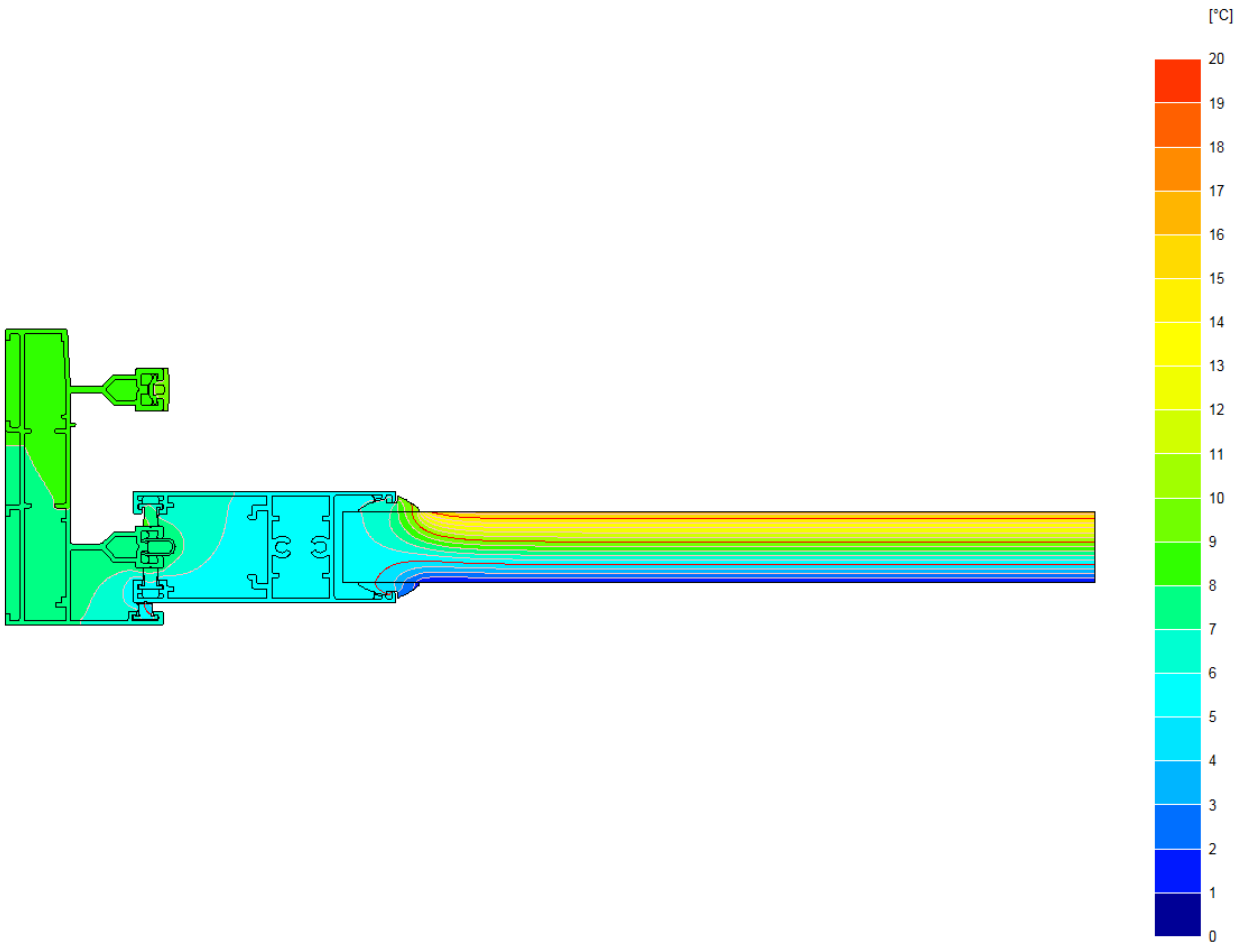


Figure 2. Isotherms (colour increment of 1°C, line increments of 1°C and 5°C)

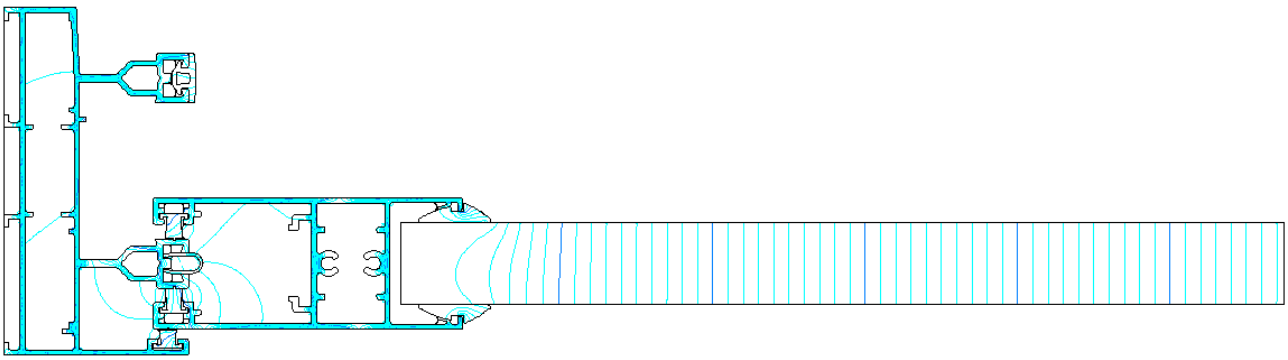

Figure 3. Heat flow lines (increment 0.1 W/m).

## 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 | **40738** |

Material thermal conductivity table

| Col. | Name | lambda [W/mK] | eps [-] |
|---|---|---|---|
| 3 | PVC rigid | 0.170 | |
| 8 | aluminium | 160.000 | |
| 13 | steel | 50.000 | |
| 28 | insulation | 0.035 | |
| 39 | polypropyl.sol. | 0.220 | |
| 60 | EPDM | 0.250 | |

Boundary condition table

| Col. | Name | t [-C] | h [W/m²K] | q [W/m²] |
|---|---|---|---|---|
| 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 [W/mK] | Col. | lambda [W/mK] | Col. | lambda [W/mK] | Col. | lambda [W/mK] |
|---|---|---|---|---|---|---|---|
| 4 | 0.083 | 5 | 0.070 | 6 | 0.034 | 7 | 0.028 |
| 9 | 0.048 | 10 | 0.034 | 11 | 0.027 | 12 | 0.034 |
| 14 | 0.025 | 15 | 0.029 | 16 | 0.072 | 17 | 0.071 |
| 18 | 0.029 | 19 | 0.030 | 20 | 0.114 | 21 | 0.096 |
| 22 | 0.028 | 23 | 0.033 | 24 | 0.029 | 25 | 0.026 |
| 26 | 0.026 | 27 | 0.028 | 29 | 0.093 | 30 | 0.026 |
| 31 | 0.031 | 32 | 0.031 | 33 | 0.042 | 34 | 0.027 |
| 35 | 0.036 | 36 | 0.027 | 37 | 0.079 | 38 | 0.026 |
| 40 | 0.032 | 41 | 0.032 | 42 | 0.028 | 43 | 0.028 |
| 44 | 0.026 | 45 | 0.026 | 46 | 0.033 | 47 | 0.030 |
| 48 | 0.029 | 49 | 0.028 | 50 | 0.029 | 51 | 0.026 |
| 52 | 0.028 | 53 | 0.028 | | | | |

## BISCO MAIN RESULTS

| | |
|---|---|
| U-value of frame | **8.915 W/(m$^2$.K)** |
| Width of frame | **0.1115 m** |
| U-value of panel 1 | **1.349 W/(m$^2$.K)** |
| Width of panel 1 | **0.2000 m** |

Frame thermal transmittance calculation table

```
Thermal transmittance of frame (EN 10077-2)
Uf = (Q/(ti-te) - Up1*wp1 - Up2*wp2) / wf = 8.915 W/(m².K)
  Q = 25.275 W/m
  ti = 20.00°C
  te = 0.00°C
  Up1 = 1.349 W/(m².K)  (right edge of bitmap)
  wp1 = 0.2000 m        (distance no. 2)
  Up2 = 0.000 W/(m².K)
  wp2 = 0.0000 m
  wf = 0.1115 m         (distance no. 1)
```