F. Validation for BS 10211: Thermal Modelling

Validation of THERM modelling software and method is shown below through adherence to Annexe A: Validation of calculation methods of ISO 10211: Thermal bridges in building construction – detailed calculations. Reference case 2 is followed and achieved results match numerical solution given to the required 0.1°C (CEN, 2009, p. 31).

Table 1. Compliance with ISO 10211

Point	Numerical solution (°C)	THERM model (°C)	Difference (°C)
A	7.1	7.1	0.0
B	0.8	0.8	0.0
C	7.9	7.9	0.0
D	6.3	6.3	0.0
E	0.8	0.8/0.9	<0.1
F	16.4	16.4	0.0
G	16.3	16.3	0.0
H	16.8	16.7/16.8	<0.1
I	18.3	18.3	0.0

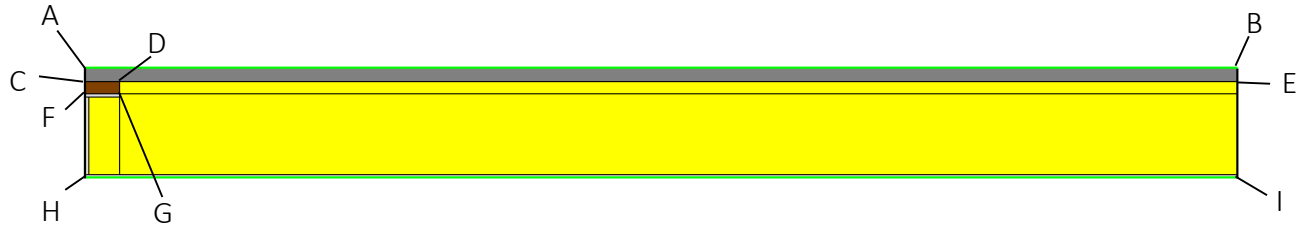


Figure 1. THERM model and reference points

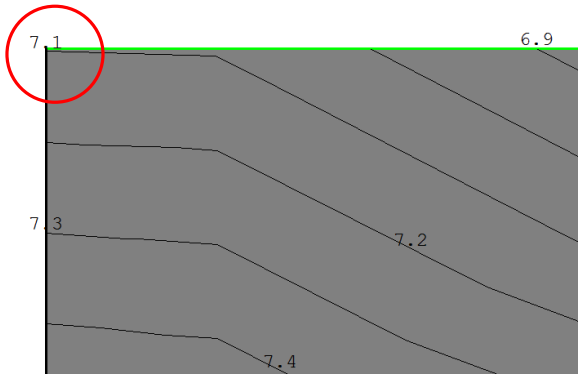


Figure 2. Point A

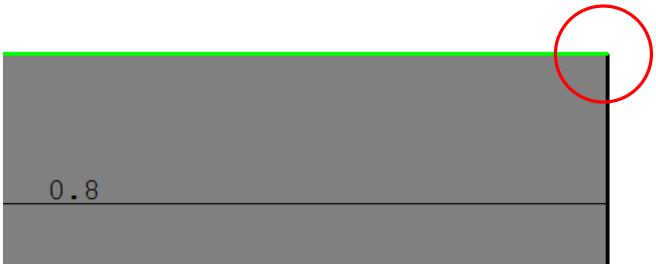


Figure 3. Point B

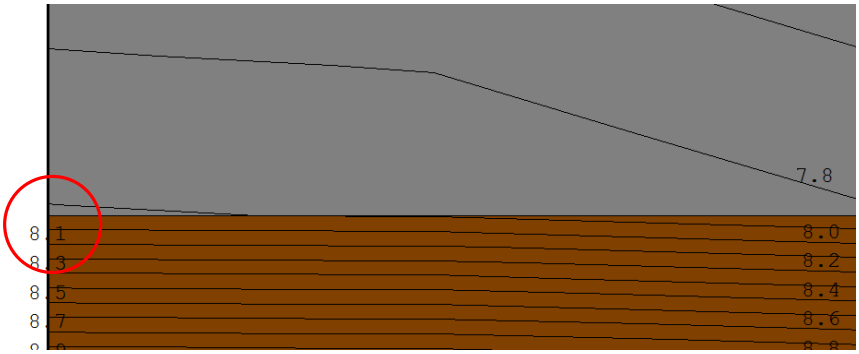
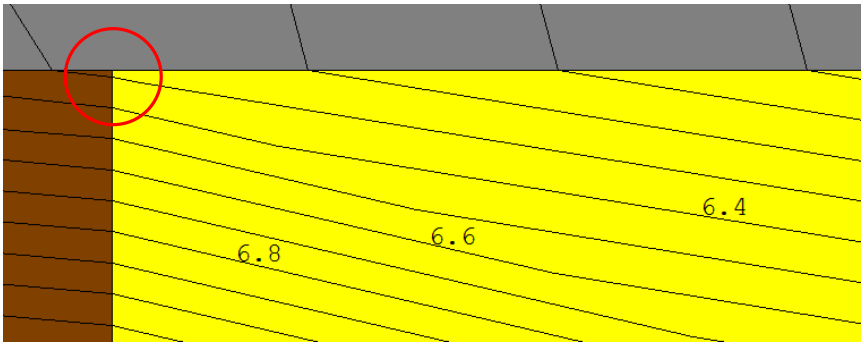


Figure 4. Point C

Figure 5. Point D



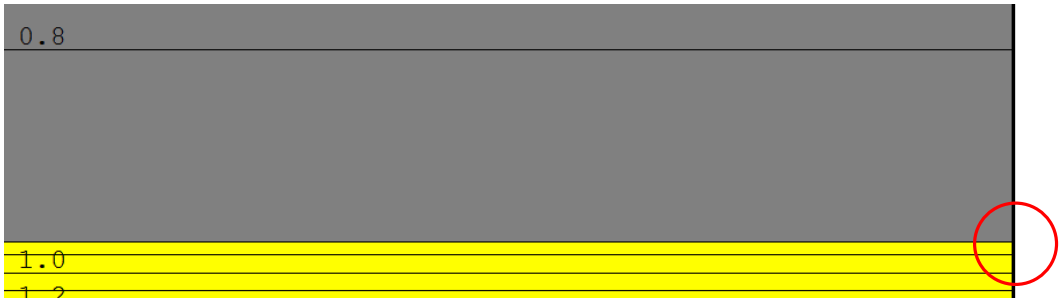


Figure 6. Point E

Figure 7. Point F

Figure 8. Point G

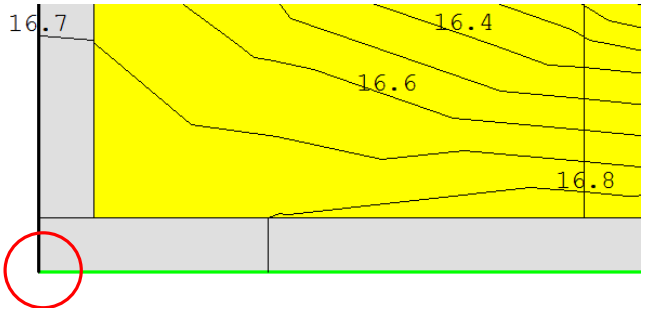


Figure 9. Point H

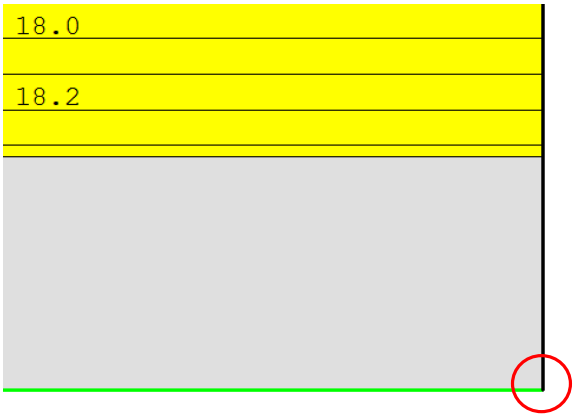


Figure 11. Point I