



SLOVENSKÁ TECHNICKÁ
UNIVERZITA V BRATISLAVE
STAVEBNÁ FAKULTA

ŠTUDENTSKÁ VEDECKÁ KONFERENCIA
AKADEMICKÝ ROK 2016/2017

TEPELNÉ MOSTY

NATÁLIA GACHOVÁ 2.PSA, VIKTÓRIA HRADECSNÁ 2.PSA

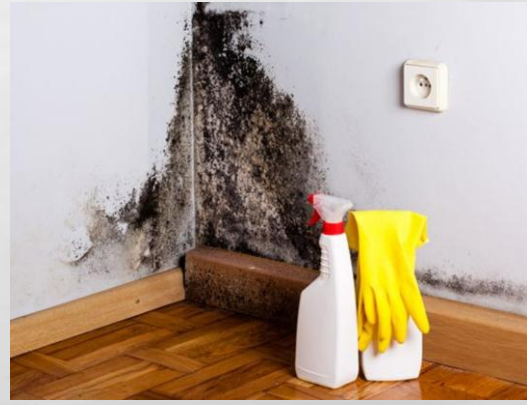
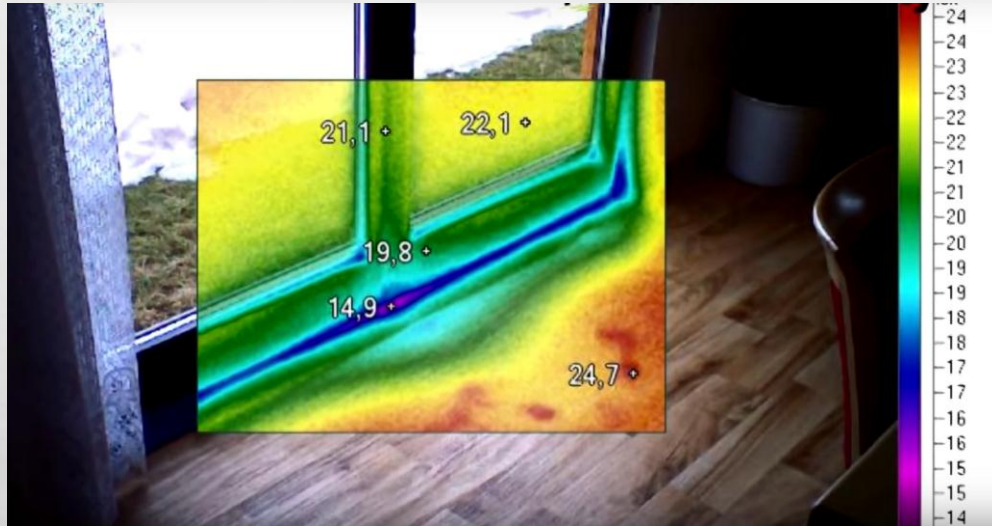
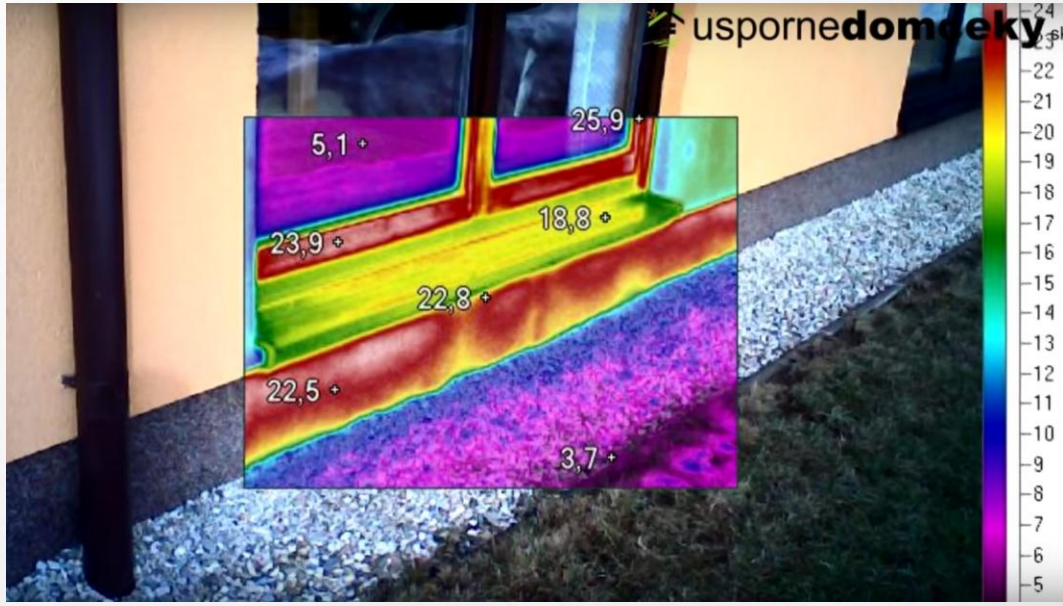
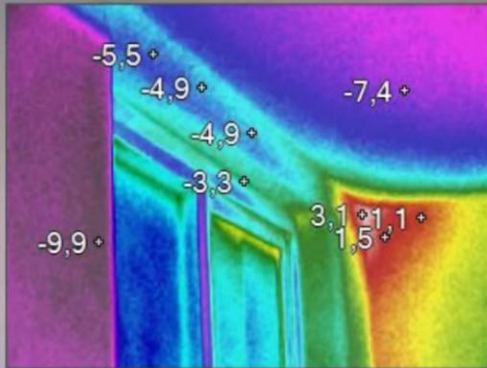
VEDÚCI PRÁCE: DOC.ING. GABRIELA PAVLEDOVÁ, PHD.

KATEDRA FYZIKY

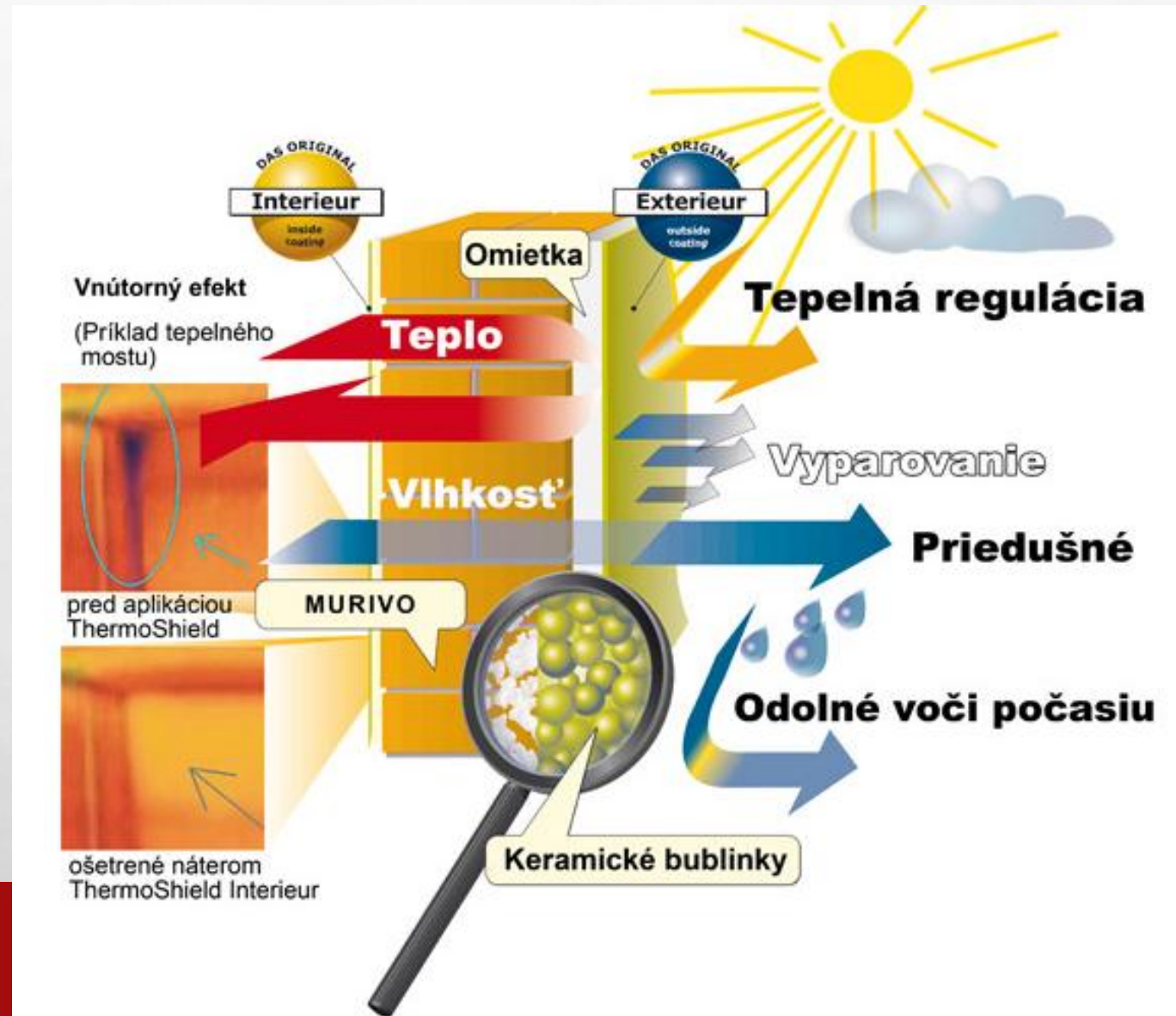


Nie je všetko zlato, čo sa ligoce

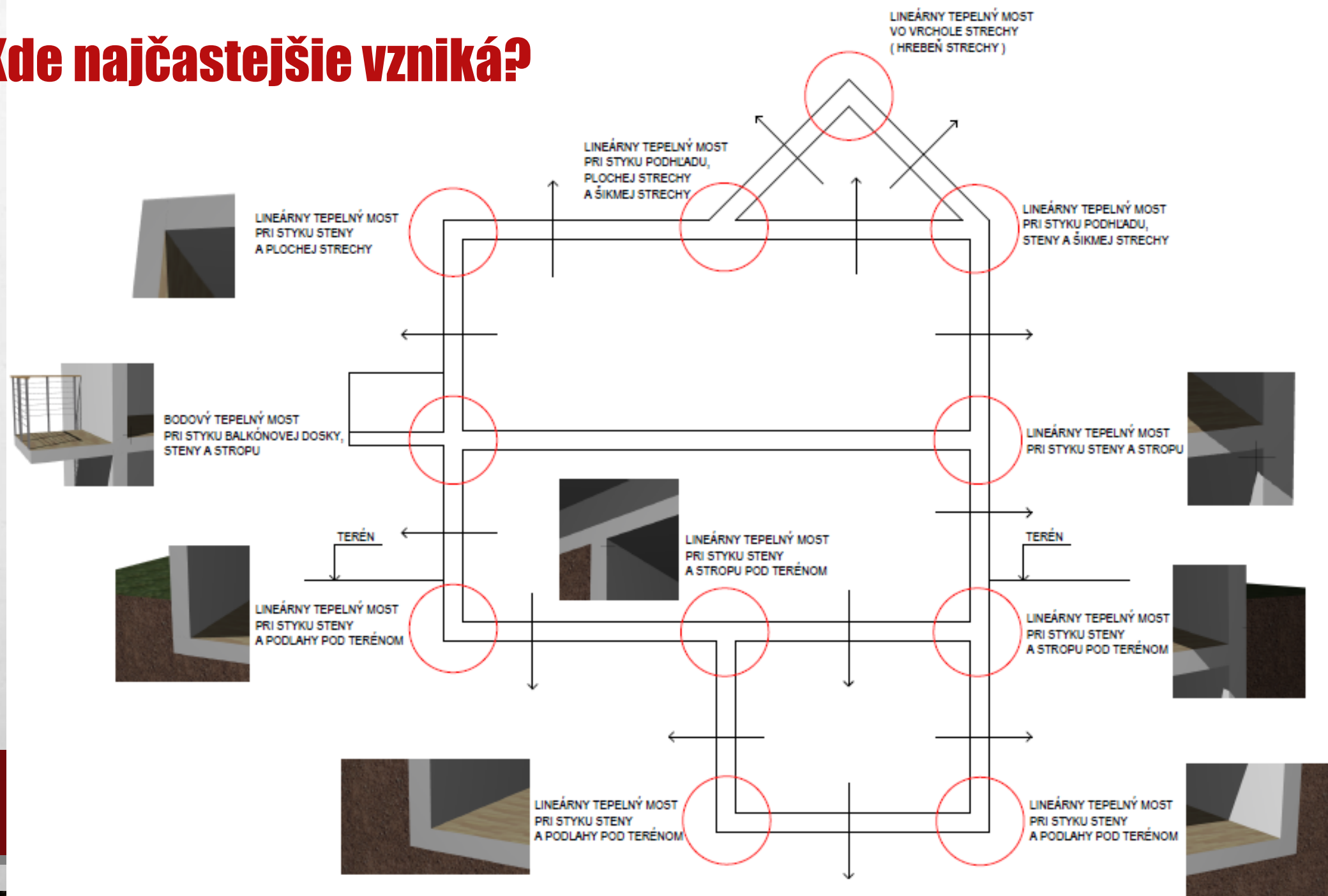




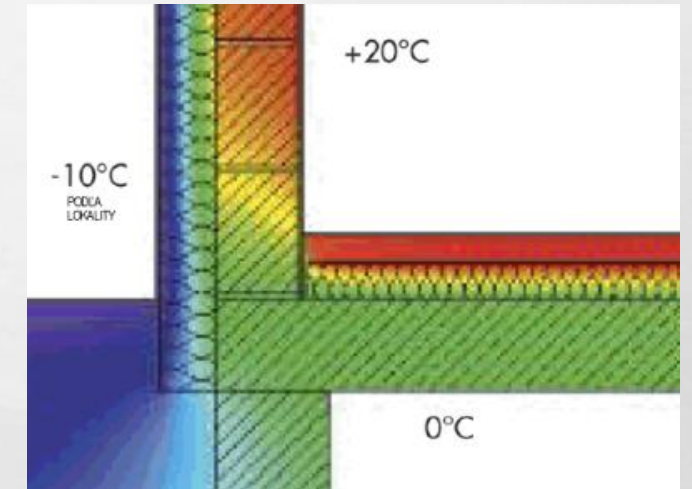
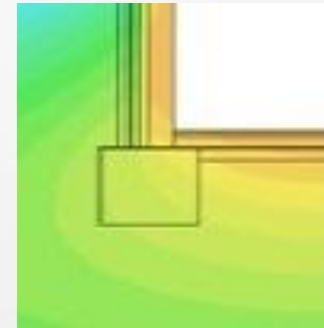
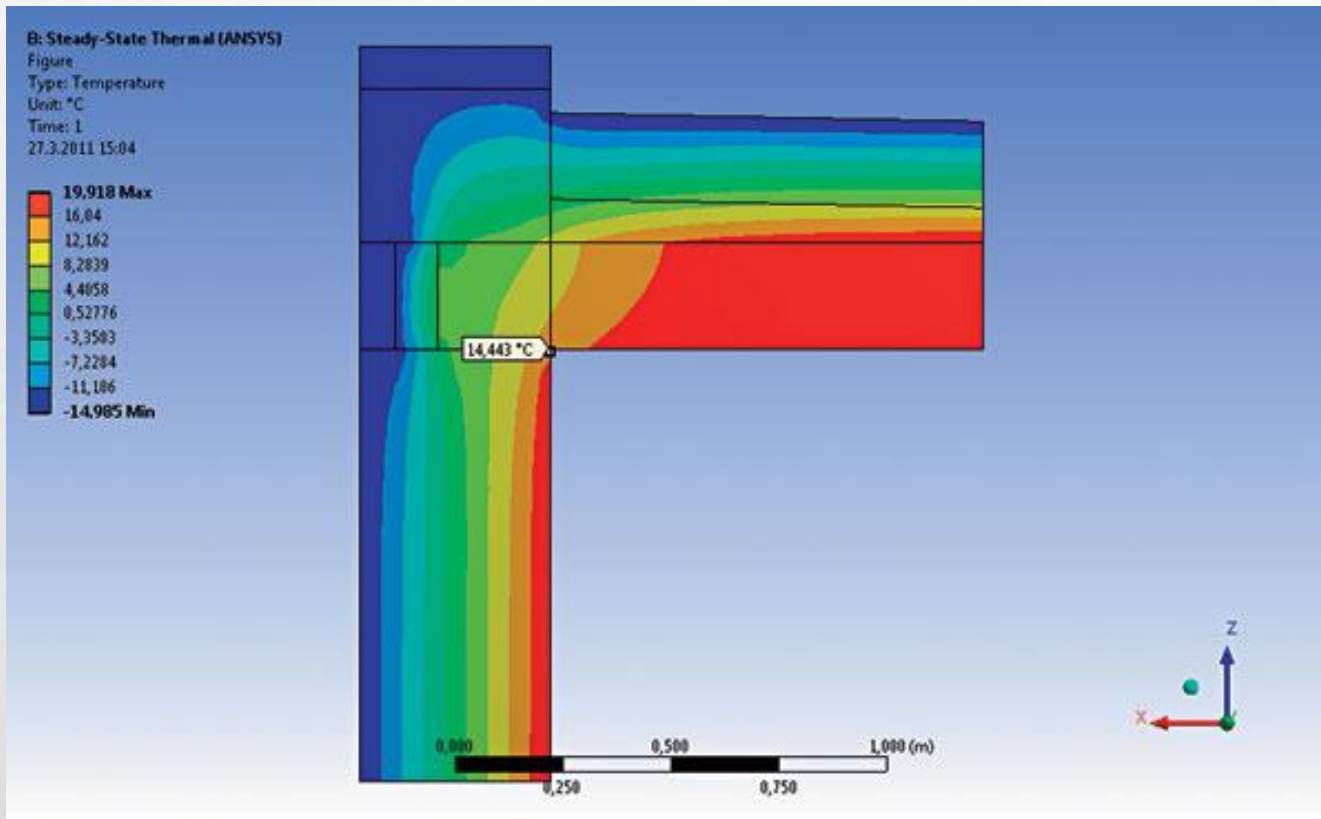
Čo je to vlastne tepelný most?



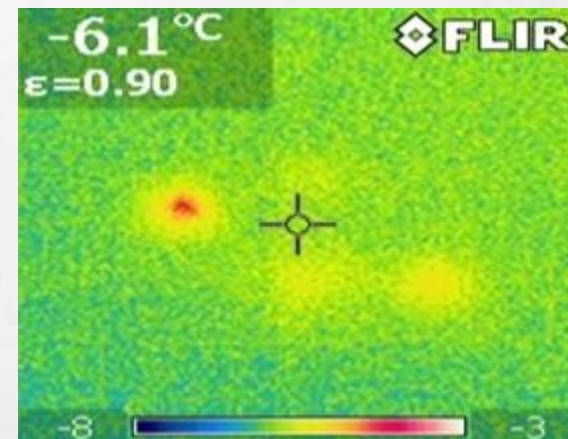
Kde najčastejšie vzniká?



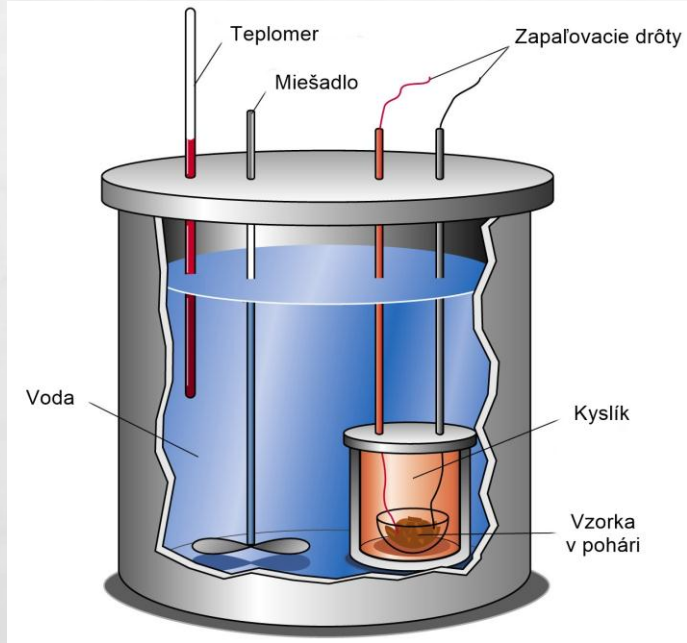
Priebehy teplôt a izotermy



Lineárny a bodový tepelný most



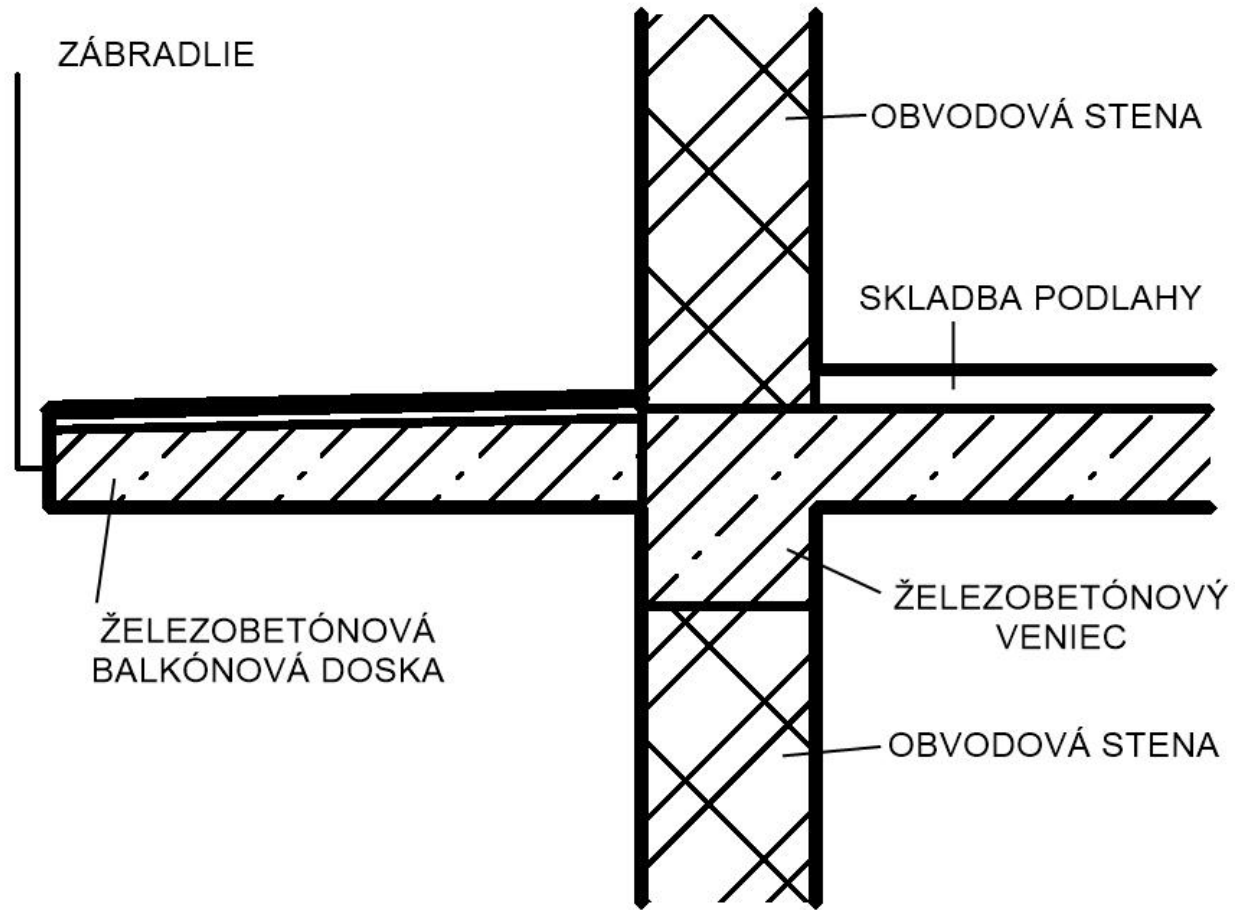
Meranie tepla

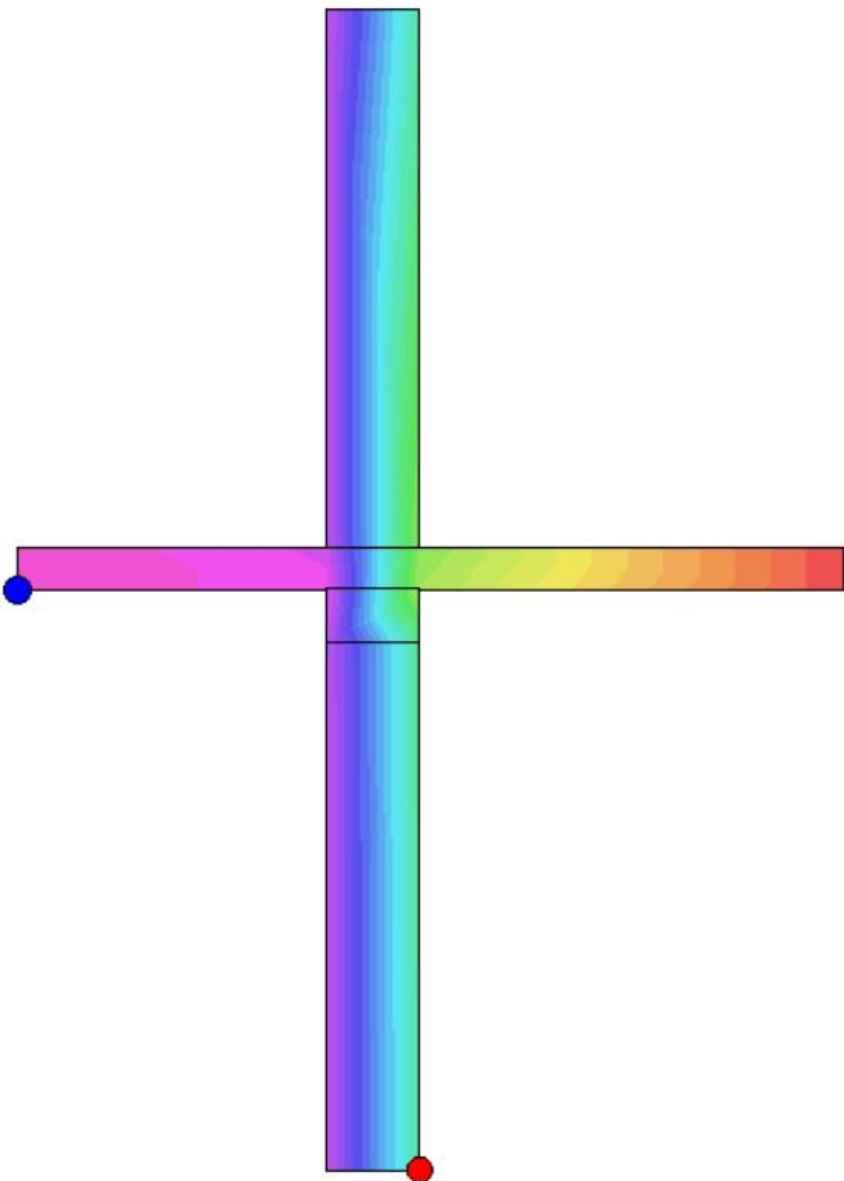


Meranie tepelných mostov



Charakteristický detail pri styku stropu, obvodovej steny a balkónovej dosky





LEGENDA:

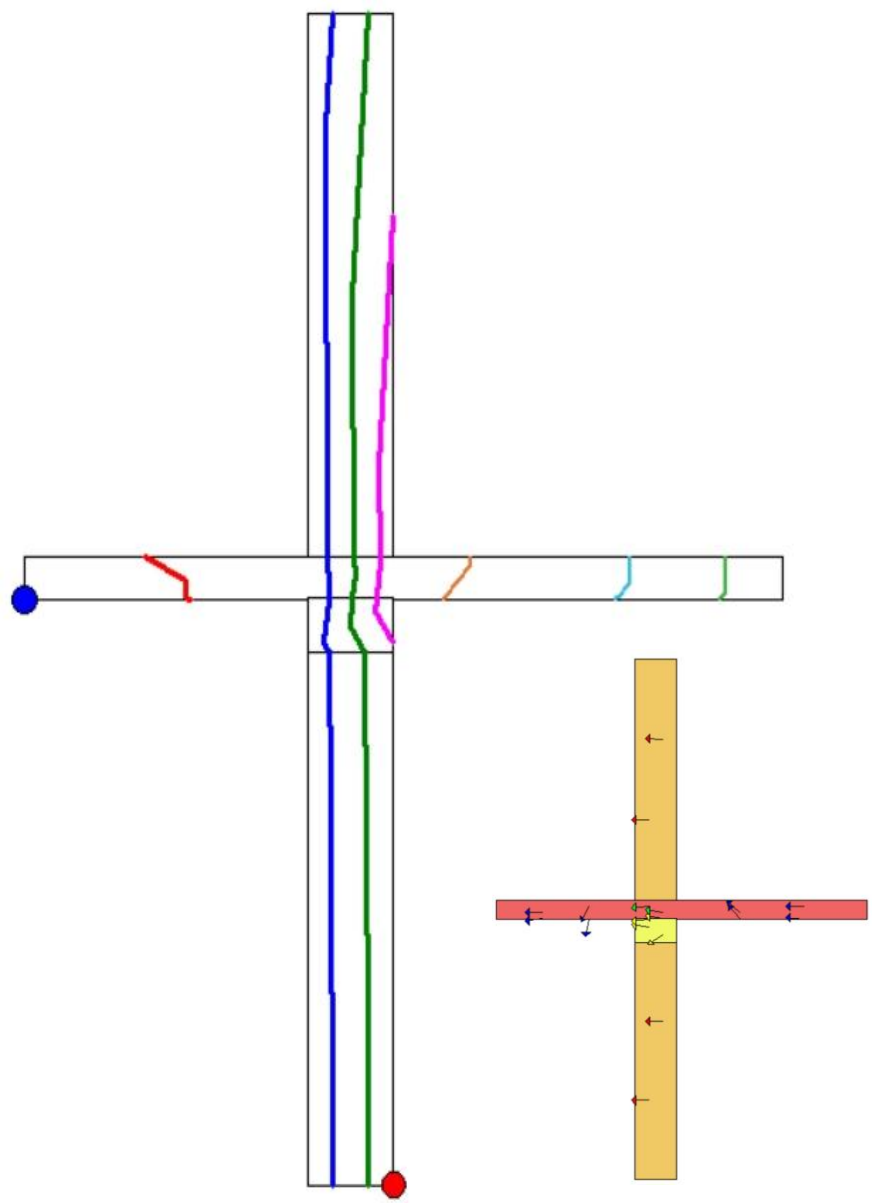
BEZ IZOLACII

Teplotní pole [C]:

Color swatch	-11,0 ... -7,9
Color swatch	-7,9 ... -4,8
Color swatch	-4,8 ... -1,8
Color swatch	-1,8 ... 1,3
Color swatch	1,3 ... 4,4
Color swatch	4,4 ... 7,5
Color swatch	7,5 ... 10,5
Color swatch	10,5 ... 13,6
Color swatch	13,6 ... 16,7
Color swatch	16,7 ... 19,8

● T_{si}=3,39 C; fR_{si}=0,464
 ● T_{si}=-10,99 C; fR_{si}=1,000

- Kontrola zadání
- Izotermie a teplotní faktor
- Orientace tepelných toků
- Pole teplot 2D
- Pole teplot 3D
- Relativní vlhkosti
- Oblast kondenzace
- Roční bilance vlhkosti



LEGENDA:

BEZ IZOLACII

Izotermie:

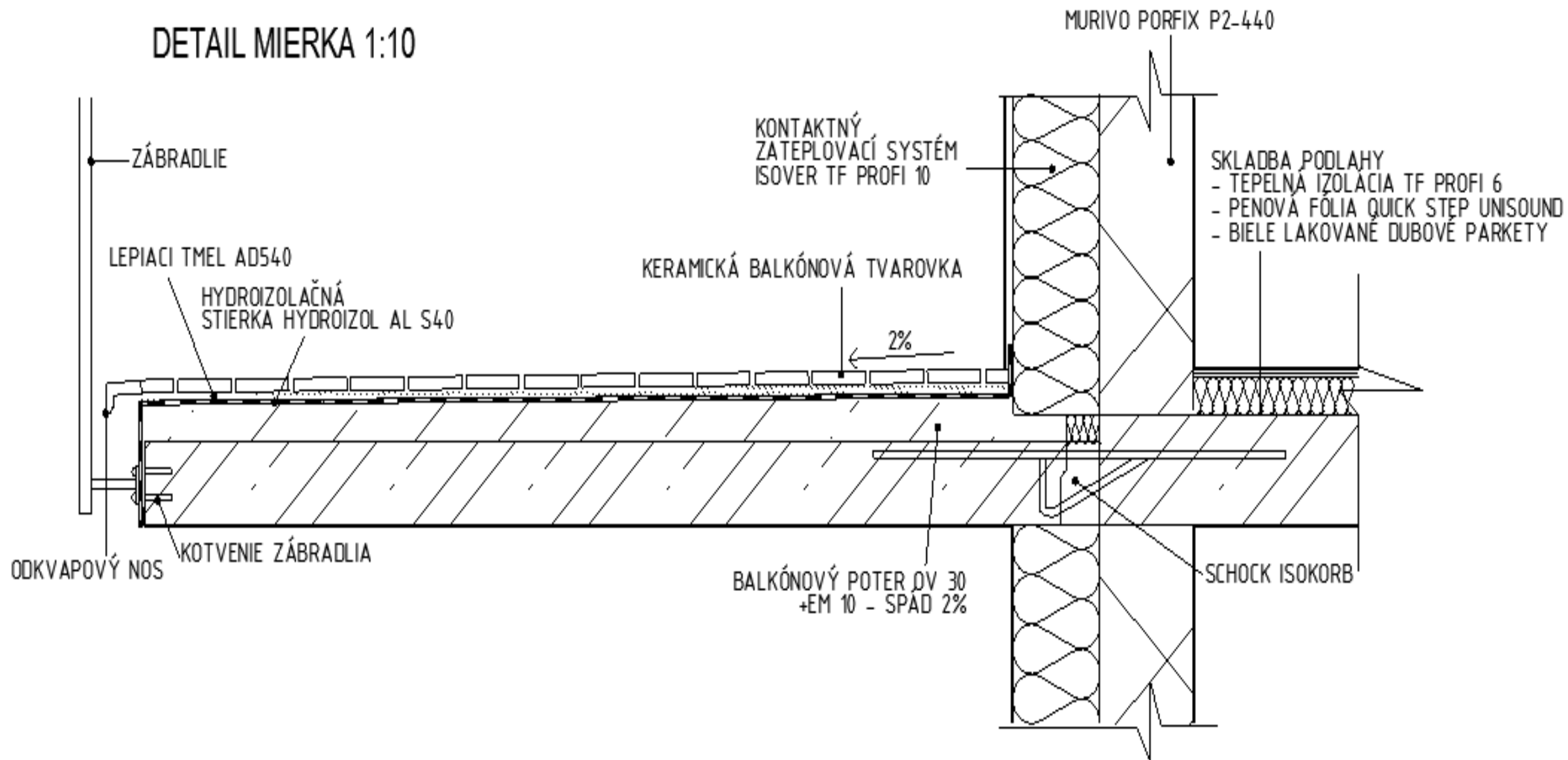
Color swatch	-10,00 C
Color swatch	-5,00 C
Color swatch	0,00 C
Color swatch	5,00 C
Color swatch	10,00 C
Color swatch	15,00 C
Color swatch	18,00 C

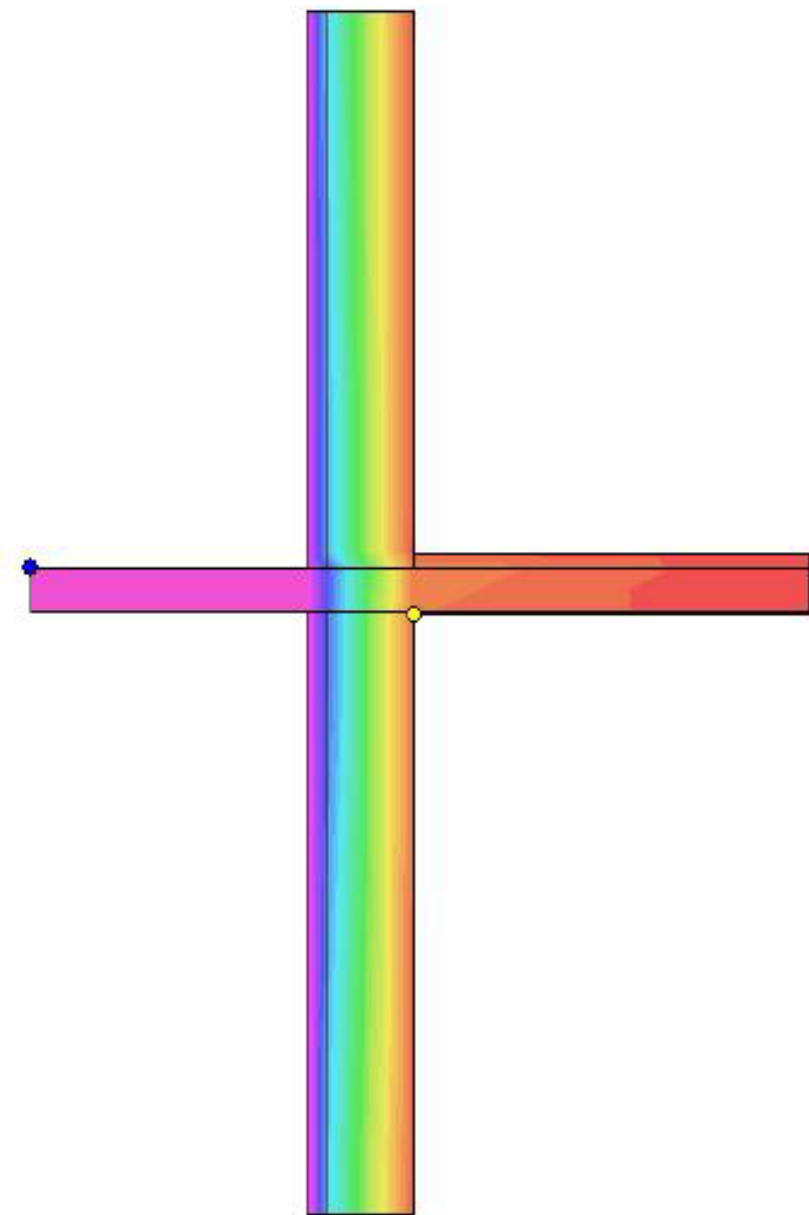
● T_{si}=3,39 C; fR_{si}=0,464
 ● T_{si}=-10,99 C; fR_{si}=1,000

- Kontrola zadání
- Izotermie a teplotní faktor
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- Oblast kondenzace
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Návrh a posúdenie detailu

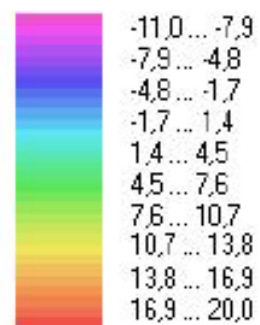
DETAIL MIERKA 1:10





TEPELNÁ MOST

Teplotní pole [C]



- Tsi=-11,00 C; fRsi=1,000
- Tsi=-11,00 C; fRsi=1,000
- Tsi=17,91 C; fRsi=0,932

Kontrola zadání



Izotermny a teplotní faktor

Orientace tepelných toků

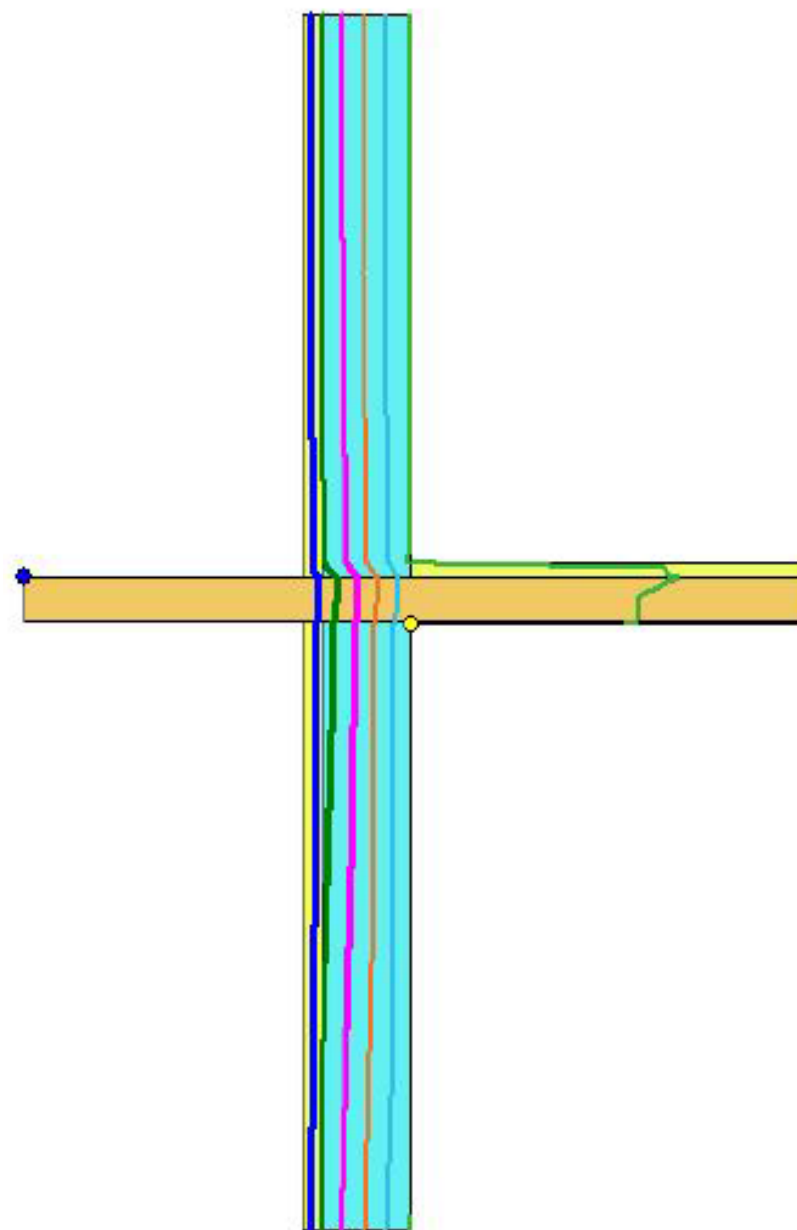
Pole teplot 2D

Pole teplot 3D

Relativní vlhkosti

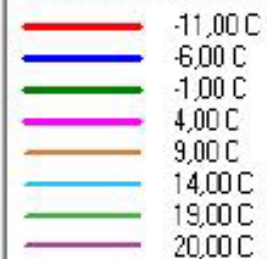
Oblast kondenzace

Roční bilance vlhkosti



TEPELNÁ MOST

Izotermny:



- Tsi=-11,00 C; fRsi=1,000
- Tsi=-11,00 C; fRsi=1,000
- Tsi=17,91 C; fRsi=0,932

Kontrola zadání



Izotermny a teplotní faktor

Orientace tepelných toků

Pole teplot 2D

Pole teplot 3D

Relativní vlhkosti

Oblast kondenzace

Roční bilance vlhkosti

Ďakujeme za pozornosť !

ZDROJE

- [HTTP://WWW.THERMOSHIELD.SK/OBRAZKY/SCHEMA_SK.JPG](http://www.thermoshield.sk/obrazky/schema_sk.jpg)
- [HTTP://WWW.VYROBADVERI.SK/WP-CONTENT/UPLOADS/2012/05/TEPELNY-MOST.JPG](http://www.vyrobadveri.sk/wp-content/uploads/2012/05/tepelny-most.jpg)
- [HTTP://4.BP.BLOGSPOT.COM/_4RKYTPPSV8A/TUNXIM_VZOI/AAAAAAAAAAY/WU7NUWTJMYK/S1600/KALORIMETER-BOM.JPG](http://4.bp.blogspot.com/_4RKYTPPSV8A/TUNXIM_VZOI/AAAAAAAAAAY/WU7NUWTJMYK/S1600/KALORIMETER-BOM.JPG)
- [HTTP://WWW.OBNOVABYTOVYCHDOMOV.SK/IMAGES/TERMOVIZIA4.PNG](http://www.obnovabytovychdomov.sk/images/termovizia4.png)
- [HTTP://WWW.GSMALARM.SK/IMAGES/01_11499_WEB.JPG](http://www.gsmalarm.sk/images/01_11499_web.jpg)
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