2.23 To structural fire engineering at Czech Technical University in Prague

Wald F., Czech Republic

To Structural Fire Engineering at Czech Technical University in Prague

František Wald Czech Technical University in Prague



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Structural fire engineering in Czech Republic



Structural fire engineering at Czech Technical University in Prague

- Recent projects
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Dissemination of knowledge in Czech Republic



In Czech Republic

At Czech Technica

Education

Structural fire engineering starts in Czechoslovakia in 1965

Publications

Karpaš J., Zoufal R., Fire protection of steel structures, in Czech, ČSP Zabraňujeme škodám, vol. 6, Prague 1978, p. 43.

Reichel V., Fire design of buildings, in Czech, Zabraňujeme škodám, Česká státní pojišťovna, part I, vol. 11, Prague 1978, p. 72.

Reichel V., Fire design of buildings, in Czech, Zabraňujeme škodám, Česká státní pojišťovna, part II, vol. 12, Prague 1978, p. 67

Reichel V.: Fire design of industrial structures, in Czech, Zabraňujeme škodám, Česká státní pojišťovna, vol. 17, Prague 1987, p. 125.

Fire code set ČSN 73 08xx



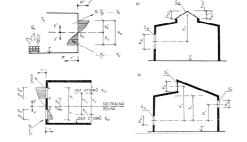
In Czech Republic

At Czech Technica

Education

Example application of the zone model

• Example for prediction of temperature in the industrial hall



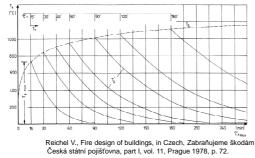
Reichel V., Fire design of buildings, in Czech, Zabrañujeme škodám, Česká státní pojišťovna, part I, vol. 11, Prague 1978, p. 72.

In Czech Republic

At Czech Technica

Example application of parametrical fire curve

 Structure of curve the based on the time of the maximal temperature



At Czech Technica

Current development in Czech Republic



Faculty of Safety Engineering of Ostrava University, www.fbi.vsb.cz

- Fire intervention/prevention



Technical institute of fire protection TUPO of Ministry of Interior, Fire and Rescue Service of the Czech Republic

Support of firebrigade investigations and technical development



Fire test laboratory PAVUS a.s. in Veselí nad Lužnicí, www.pavus.cz



Czech Technical University in Prague, fire.fsv.cvut.cz

Structural fire engineering

Connection design at CTU in Prague



Connections

- - Thin walled
 - Sandwich panels, PhD. ing. Mareš
 - With thermal isulation, PhD. ing. Šulcová
- Column bases, EC 3 model, Heron 2008
 - Component in tension, PhD. ing. Sokol
 - Component in compression
 - New connection, INFASO PhD. ing. Žižka





Recent projects at CTU in Prague

- · Fire tests on structures
 - Cardington 2003
 - Component model, Sokol 2002
 - Ostrava 2006
 - · Connection temperatures
 - Mokrsko 2008
 - · Composite slab
 - · With improved fire resistance



In Czech Republic

Education

Finished projects at CTU in Prague

- Connections behaviour
 - End plate connections, PhD. Beneš 2003
 - Beam flange in compression, PhD. Uhlíř 2005
 - Fin plate connections, PhD. Tichá 2009
 - Improved fire resistance, PhD. Chlouba 2010
 - Column web in shear, PhD. Strejček 2010





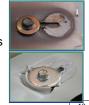


In Czech Republic

At Czech Technica University in

Current projects at CTU in Prague

- · Fibre concrete composite slab
 - Grant Agency of Czech Republic
- Fire behaviour of steel class 4 sections
 - Ministry of Education
- Connections of steel to concrete structures
 - RFCS COMPRIFIRE
 - Travelling fires
 - Ministry of Education
- Connections of corrugated sheets
 - Ministry of Education



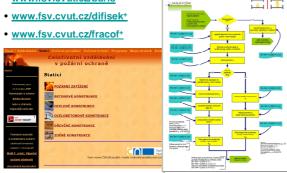
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Dissemination of knowledge

• fire.sv.cvut.cz

• www.fsv.cvut.cz/baris



Thank you for your kind attention

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