General Introduction

Olivier VASSART - Bin ZHAO

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Content of presentation

- Background of the project
- Partnership
- Acknowledgement
- Programme of the seminar
  - Technical background of simple design method
  - Application of simple design method (design guide)
  - User-friendly design tools
• New simple design method (1)
  – Full scale fire tests have revealed that the fire performance of global composite floor systems could be much higher than that obtained in standard fire tests with isolated structural members
  – A new innovative simple design method was developed in UK on the basis of natural fire tests
  – More experimental evidences have been obtained about such good behaviour in long duration ISO fire condition
  – It provides economic and robust fire resistance solutions for various steel framed buildings
• Project FRACOF (ArcelorMittal & CTICM)
  1. Background Technical Report
     To provide in-depth information on the development and verification of the simple design method
  2. Design Guide
     The design guide provides the fundamental principles of the design process using the simple design method as well as necessary construction details
  3. Design Software
     The design software is made available free of charge via the website of ArcelorMittal
  4. Dissemination over French market
     Introduction of the simple design concept in French fire regulation
New simple design method (2)

- However, because of the innovative nature of this new design concept, it remains still very unfamiliar for most of engineers and authorities in Europe
- Clear explanations need to be given for its scientific basis as well as important construction details
- Its application through user-friendly design tool is necessary to be demonstrated

Set-up of current dissemination project in various European countries

- It is to allow all engineers in Europe to get plenty of benefit from the application of this design concept
Partnership of the project

- Consortium of the project composed of:
  - ArcelorMittal (Luxembourg)
  - CTICM (France)
  - LABEIN (Spain)
  - CTU - Ceske vysoke uceni technicke v Praze (Czech Republic)
  - ITB (Poland)
  - Politehnica University Timisoara (Romania)
  - University of Ljubljana (Slovenia)
• Project sponsored mainly by:
  – European Commission through the programme: Leonardo da Vinci - Transfer of Innovation

Acknowledgment
Programme of the seminar

• Technical background of simple design method
  – Fire performance of steel and concrete composite floor systems in real fires (full scale fire tests and accidental fires)
  – Technical fundamentals of simple design method
  – New experimental evidences derived from long duration standard fire furnace tests
  – Numerical investigation of simple design method
• Application recommendations of the simple design method (Design Guide)
• User-friendly software and working examples