

Water mist systems for the protection of storage areas of burnable liquids:

Fire tests and case study

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- Storage Areas for burnable liquids with low flash point
- Pallet or barrel storage up to 5,5 m height
- Application is full scale fire tested (based on CEN TS 14972)
- A3F injection for prevention of re-ignition
- VdS approved system



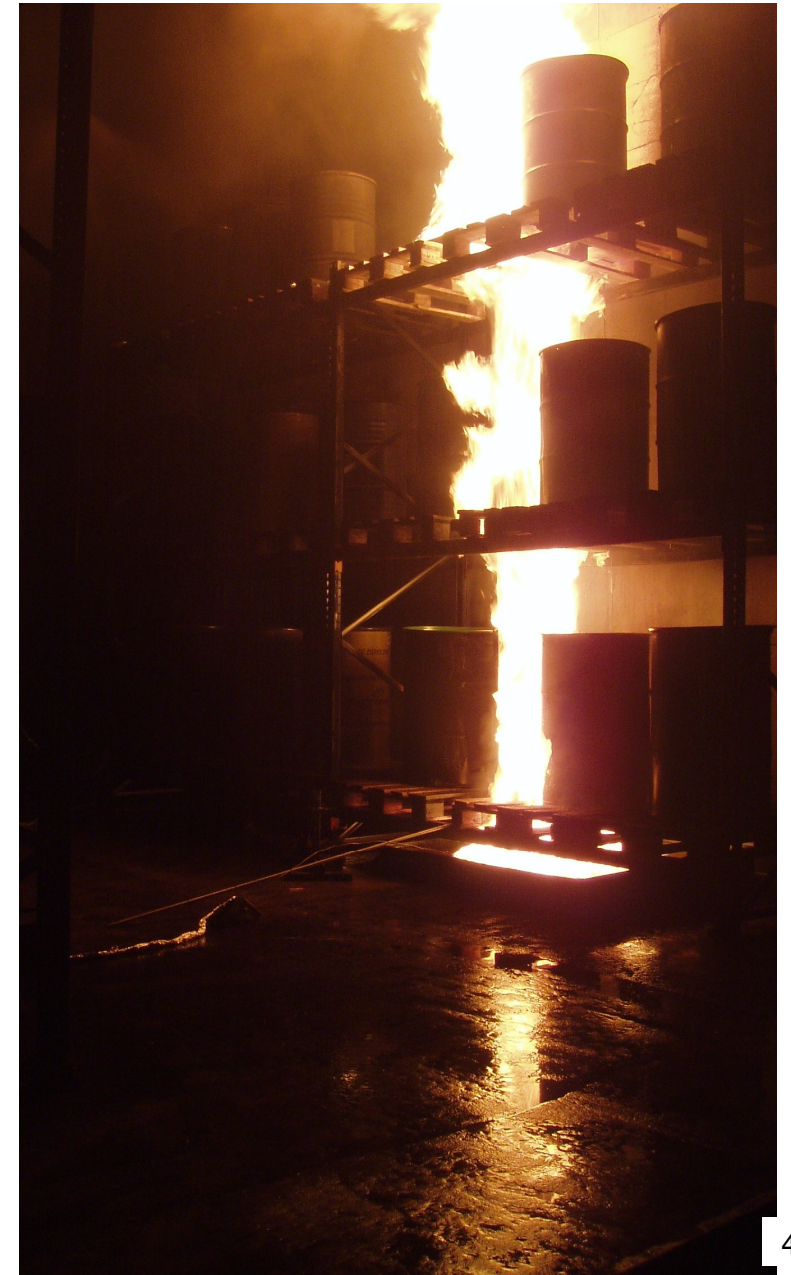
Fire Scenarios

- Realistic storage mock up
- Open and hidden pool fires up to 4 m²
- Flowing fire from top to ground level
- Spray fire





4 m² open pool fire

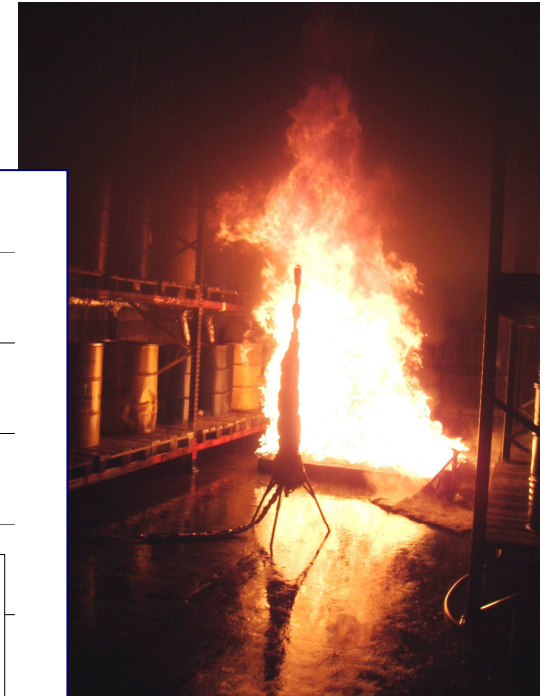
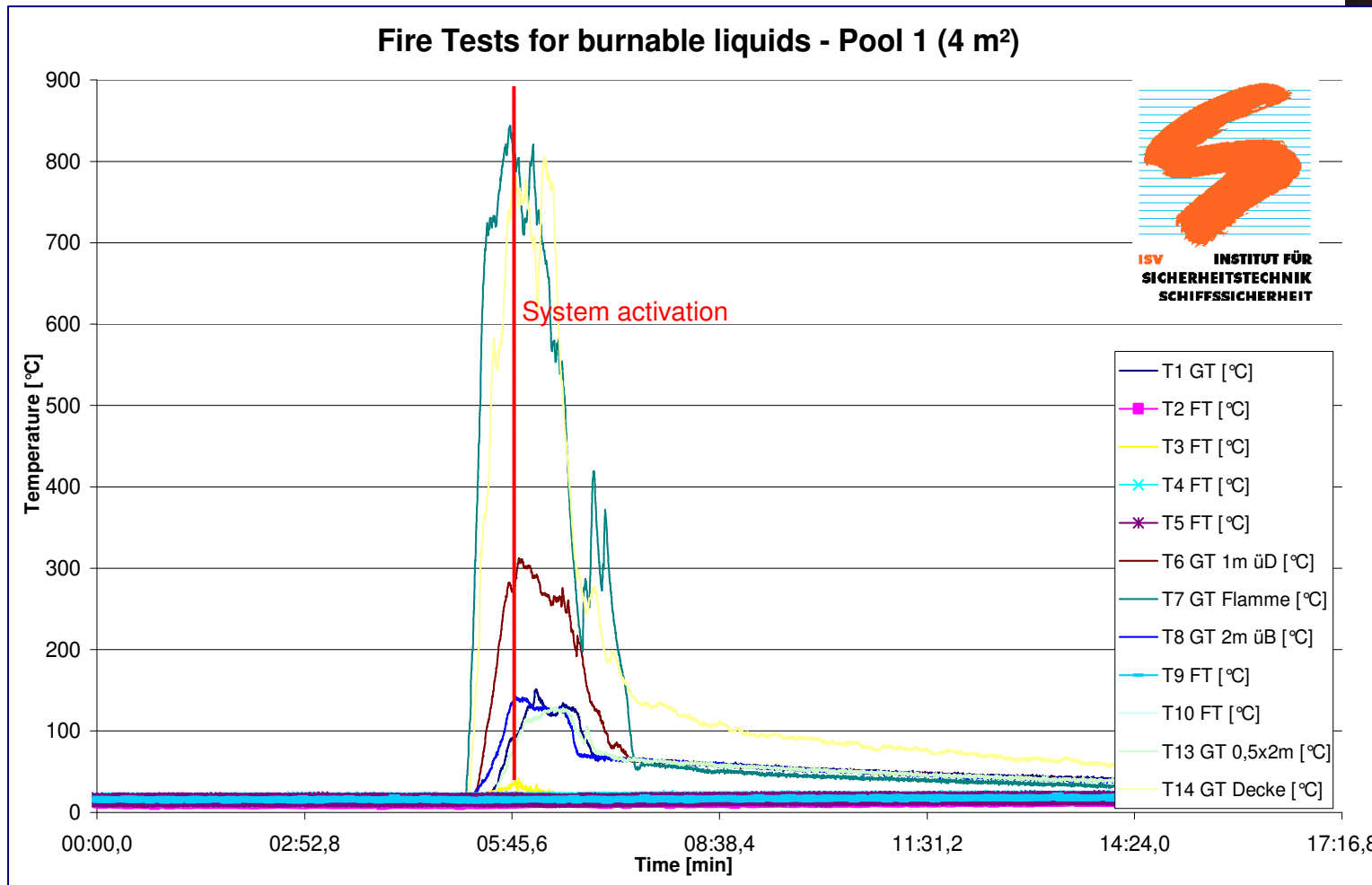


Flowing fire and 2 m² hidden pool fire

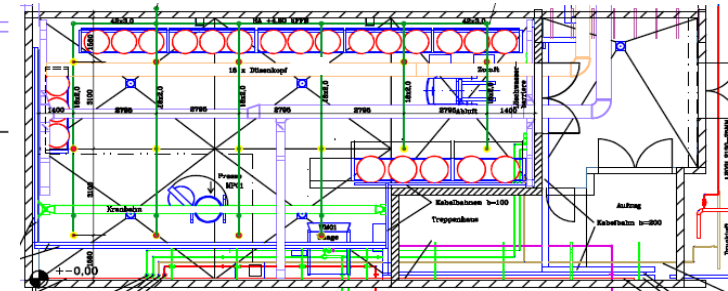
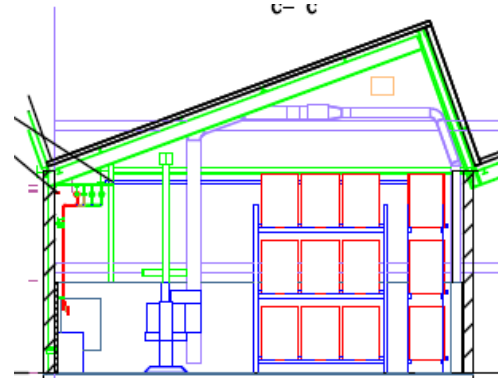
Test results

- All fires extinguished at latest after 15 Minutes (but in most tests much faster)
- No re-ignition (for at least 3 min after fire extinguishment and stop of the WMS)
- Temperatures inside the barrels $< 40^{\circ}\text{C}$
- Average Temperatures below 100°C

Example: 4 m² pool fire



Case study: Symrise Germany



Storage Area protected by a high pressure water mist system

2 x 120 l pump system (Fogtec) with A3F injection



- Storage area for burnable liquids Class A1
- 2 x 120 l /min System with A3F Injection
- Open System with external detection (flame and smoke) for protection of storage areas
- VdS approved installation