VVUU
TESTING

Flammability testing laboratory

VVUU
RISK ANALYSIS
TESTING
CERTIFICATION

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Flammability testing laboratory

VVUÚ, a.s. is a European leader in testing the flammability of materials, parts and products for mineral extraction, for processing plastics, liquids and solids, for the chemical, electrotechnical, automotive and textile industries. **VVUÚ, a.s. is testing laboratory no. 1025, accredited under ČSN EN ISO/IEC 17025:2018.**

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Our offer

Flammability tests using fire simulation, where we examine the resistance of materials to flame stress and further simulate fires for the purpose of training mine rescuers. The laboratory is also equipped with a special fire gallery for large-scale fire simulations.

The tunnel is one of the most unique workplaces in the Czech Republic and EU in terms of its focus and capabilities. It has a length of 46 m and cross-section of 10 m^2, and it offers the possibility of setting the speed of the air flow and is used for testing materials in real fire conditions with the possibility of measuring temperatures and sampling combustion emissions in different parts of the fire tunnel.

Accredited examinations

Underground materials	
Directive No. 9/1986 SZI Instruction No. 34 SZ	flammability tests of plastic ventilation pipes in a fire testing tunnel
EN 14591 - 2, Annex B.	tests efficiency of explosion barriers (trays and bags) in the conditions in a fire testing tunnel
EN ISO/IEC 80079 - 38, Article 6.2	test of flammability of non- metallic materials
DIN 22 100 - 5	flammability test of plastic hoses and pipes
Conveyor belt tests according to the requirements of EN 14973 and EN 12882	
EN ISO 340	determination of flame resistance
EN ISO 20238	determination of resistance to ignition by friction
EN 12881 - 2 + A1	flammability test in a fire testing tunnel
EN 12881 - 1, outside chapter 7	determination of resistance to ignition and burning on a flat gas burner in a fire testing tunnel
EN ISO 284	determination of surface electrical resistance

Liquids	
EN ISO 2719	determination of flash point - Pensky-Martens closed cup method
EN 57:1995	determination of flash point - Abel-Pensky closed cup method
EN ISO 2592	determination of flash and fire points - Cleveland open cup method
EN 14522:2006	determination of ignition temperature
Plastics, plastic hoses and pipes	
EN ISO 4589 - 2, UIC 564 - 2 Annex 7	determination of burning behaviour by oxygen index method
UL 94, Ed.6 - art.7, EN 60695 - 11 - 10	flammability of plastic materials, horizontal burning (HB)
UL 94, Ed.6 - Article 8, EN 60695 - 11 - 10	flammability of plastic materials, vertical burning (V-0,V-1,V-2)
UL 94, Ed.6 - Article 9, EN 60695 - 11 - 20	flammability of plastic materials, vertical burning (5VA,5VB)
UL 94, Ed.6 – Article 11	flammability of plastic materials, vertical burning of thin materials (VTM-0, VTM-1, VTM-2)
UL 94, Ed.6 – Article 12	flammability of plastic materials, horizontal burning of foam materials (HBF, HF - 1,HF - 2)
Textile	
EN ISO 6940, 95/28/EC, Annex VI, UNECE No. 118, Annex 8	determination of ease of ignition
EN ISO 6941, 95/28/EC, Annex VI, UNECE No. 118, Annex 8	measurement of flame propagation speed of vertically oriented specimens
Vehicle interior materials	
95/28/EC Annex IV, UNECE No. 118 Annex 6, ISO 3795, TL1010, DBL 5307 Article 5.1, WSK - M4D556 A / A3 / A4 / A5, FMVSS §571.302, VW 96243, MS 300 - 08	measurement of flame propagation speed, determination of flammability
Solids	
ISO 871	determination of flash, ignition and glow temperature
Chemical substances and chemical preparations	
Commission Regulation (EC) No. 440 / 2008 Method A.12	determination of flammability of substances and agents reacting with water
Solid alternative fuels	
EN ISO 21644, Annex B: B.7, B.8, B.9	determination of biomass content
Fuel tanks for motor vehicles	
UNECE 34.01 ch. 5 paragraph 5.1.7	fire resistance test

Other activity

Stringent testing according to the individual requirements of the customer done on site, on the equipment and professionalism of workers, including the processing of records from the measurement of temperatures, combustion emissions, with the possibility of regulating the speed of air flow, and used, for example, in the verification of the causes of accidents/expert reports, the development of new materials, and the verification of the parameters required for establishing the safe operation of technologies.

Seminars and educational activities

Our work in the field includes the organization of regular seminars that focus on the danger of the explosion of flammable gases, flammable liquid vapors and combustible dust, and on eliminating the risk of explosion in industrial plants. As part of these seminars, we conduct demonstrations of the burning and explosion of combustible dust. We are ready to offer you our professional experience and will be glad to show you what combustible dust can do.

VVUU RISK ANALYSIS

Engineering, analysis and assessments in operational and process safety. Comprehensive services and solutions in explosion prevention and protecting industrial operations. Our team of risk analysis experts is ready to consult and address your needs and requirements in the explosion protection document, external influence identification protocols, and in undertaking a risk analysis of electrical and non-electrical equipment.

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VVUÚ is the Notified Body 1019 engaged in assessing the conformity of personal protective equipment against falls from height and slips, protective systems for use in explosive atmospheres (ATEX), explosives for civil use, and selected types of machinery for use underground.

The certification body VVUÚ is also accredited to certify protective and rescue equipment for working at heights, conveyor belts and flexible medium volume bags for non-hazardous materials.

VVUÚ has been assessing and defining fire and explosion risks for more than 70 years. VVUU, a.s. is a market leader, a company with modern and complex laboratory, testing and development facilities.

Ensuring industry safety is the clearly defined direction of the company's core activity. VVUÚ offers its services to all companies at risk of industrial accidents, explosions or fires.

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