



**EA MLA Signatory**  
**Český institut pro akreditaci, o.p.s.**  
(Czech Accreditation Institute)  
**Hájkova 2747/22, Žižkov, 130 00 Praha 3**

issues

according to section 16 of Act No. 22/1997 Coll., on technical requirements for products and on changes and amendments to some Acts, as amended

# CERTIFICATE OF ACCREDITATION

No. 475/2025

**Ministerstvo vnitra zastoupené generálním ředitelstvím Hasičského záchranného sboru ČR -  
Technickým ústavem požární ochrany  
with registered office Nad Štolou 936/3, 170 34 Praha 7 - Holešovice  
Company Registration No. 00007064**

for the Testing Laboratory No. **1011.2**  
TÚPO Testing Laboratory

Scope of accreditation:

Testing of parameters of fire-fighting equipment, fire protection equipment, extinguishing equipment and media, testing of fire safety of substances, materials, products, analyses and collection of fire scene samples to the extent as specified in the appendix to this Certificate.

This Certificate of Accreditation is a proof of accreditation issued on the basis of assessment of fulfillment of the accreditation criteria in accordance with

**ČSN EN ISO/IEC 17025:2018**

In its activities performed within the scope and for the period of validity of this Certificate, the abovementioned Accredited Body is entitled to refer to this Certificate, provided that the accreditation is not suspended and the Accredited Body meets the specified accreditation requirements in accordance with the relevant regulations applicable to the activity of an accredited conformity assessment body.

This Certificate of Accreditation replaces, to the full extent, Certificate No.: 192/2024 of 26/04/2024, and/or any administrative acts building upon it.

The Certificate of Accreditation is valid until: **26/04/2029**

Prague: 18/09/2025



Signed in the Czech original:  
Jan Velíšek on 18/09/2025

**Jan Velíšek**  
Director of the Department  
of Testing and Calibration Laboratories  
Czech Accreditation Institute

This translation of the Czech original has been issued by: Andrea Muzikářová

**The Appendix is an integral part of  
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*The laboratory applies a flexible approach to the scope of accreditation.*

*The current list of activities carried out within the flexible scope is available on the website <https://www.hzscr.cz/clanek/zkusebni-laborator-c-1011-2-zkusebni-laborator-c-1011-2-akreditovana-cia.aspx> in the form of the „List of activities within the flexible scope of accreditation“.*

*The laboratory provides opinions and interpretations of the test results.*

*The laboratory is qualified to carry out standalone sampling.*

**Tests:**

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
<b>1</b>	<b>Pressure tests</b>			
1.1	Determination of buddy line tightness and strength	ČSN 80 8715, cl. 3.2	Isolated and both-side coated pressure fire-fighting hoses	A
1.2	Proof pressure test	ČSN 80 8715, cl. 3.3	Isolated and both-side coated pressure fire-fighting hoses	A
1.3	Determination of destruction pressure	ČSN 80 8715, cl. 3.4	Isolated and both-side coated pressure fire-fighting hoses	A
1.4	Hydrostatic testing	ČSN EN ISO 1402, cl. 8.1, 8.2, 8.3	Rubber and plastics hoses and hose assemblies	A, D
1.5	Testing of internal pressure resistance	ČSN EN 671-1 ed. 2, Annex F.7	Hose reels with semi-rigid hose	A, D
1.6	Strength test	ČSN EN 671-1 ed. 2, Annex F.8	Hose reels with semi-rigid hose	A, D
1.7	Internal overpressure resistance test	ČSN EN 671-2 ed. 2, Annex F	Hose reels with lay-flat hose	A, D
1.8	Determination of tightness and pressure test	ČSN EN 15182-2, cl. 4.4, 4.5	Hand-held fire-fighting branchpipes – combination branchpipes PN 16	A, D
1.9	Determination of tightness and pressure test	ČSN EN 15182-3, cl. 4.4, 4.5	Hand-held fire-fighting branchpipes – smooth bore jet and/or one fixed spray jet angle branchpipes PN 16	A, D
1.10	Determination of tightness and pressure test	ČSN EN 15182-4, cl. 4.4, 4.5	Hand-held fire-fighting branchpipes – high pressure branchpipe	A, D

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Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
1.11	Determination of tightness and pressure test	ČSN EN 17407, cl. 8.5	Portable equipment for projecting extinguishing agents supplied by firefighting pumps – Collecting heads and dividing breechings PN 16	A, D
1.12	Determination of strength and tightness	ČSN 38 9427, Annex A.4, A.5	Fire armatures – Fire-fighting couplings	A
1.13	Determination of tightness and strength	ČSN 38 9441, Annex A.1, A.2	Fire armatures – Double outlet standpipe	A
1.14	Determination of tightness of the non-return valve	ČSN 38 9403, cl. 6.3	Fire armatures – Suction strainers	A, D
1.15	Pressure measurement	ČSN EN 1028-2+A1 Annex B	Fire-fighting centrifugal pumps with primer	A, D
1.16	Pressure test	ČSN EN 1028-2+A1 Annex G	Fire-fighting centrifugal pumps with primer	A, D
1.17	Dry suction test	ČSN EN 1028-2+A1, Annex D	Fire-fighting centrifugal pumps with primer	A, D
1.18	Pressure test	ČSN EN 13731 cl. 6.8.1	Lifting bags	-
1.19	Resistance to penetration	ČSN EN 13731 cl. 6.8.2, Choice 2	Lifting bags	-
1.20	Hydraulic loss test	ČSN 80 8715, cl. 3.8	Isolated and both-side coated pressure fire-fighting hoses	A, D
1.21	Pressure loss test	ČSN EN 17407, cl. 8.6	Portable equipment for projecting extinguishing agents supplied by firefighting pumps – collecting heads and dividing breechings PN 16	A, D
1.22	Pressure loss test	ČSN 38 9441, Annex A.5	Fire armatures – Double outlet standpipe	A
<b>2</b>	<b>Measurement of geometric quantities and weight</b>			
2.1	Determination of dimensions	ČSN 80 8715, cl. 3.1; ČSN 80 8711, cl. 3.2, tbl.1	Isolated and both-side coated pressure fire-fighting hoses	-
2.2	Determination of dimensions	ČSN EN ISO 4671	Rubber and plastics hoses and hose assemblies	A, D

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2.3	Determination of dimensions	ČSN EN 671-1 ed. 2, cl. 5.2.1, 5.3.3, 5.4.3, 5.7	Hose reels with semi-rigid hose	A, D
2.4	Determination of dimensions	ČSN EN 671-2 ed. 2, cl. 5.2.1, 5.4.1, 5.4.3, 5.6	Hose reels with lay-flat hose	A, D
2.5	Determination of dimensions and weight	ČSN EN 17407, cl. 8.3	Portable equipment for projecting extinguishing agents supplied by firefighting pumps – Collecting heads and dividing breechings PN 16	A, D
2.6	Determination of dimensions and weight	ČSN 38 9427, Annex A.1, A.2	Fire armatures – Fire-fighting couplings	A
2.7	Determination of dimensions and weight	ČSN EN 1147, cl. 5 to 8	Portable ladders for fire service	A, D
2.8	Determination of dimensions	TÚPO Guideline No. 01-14 (ČSN 30 0552; ČSN EN 1846-2)	Fire-fighting vehicles	-
2.9*	Weight determination	TÚPO Guideline No. 02-14 (ČSN EN 1846-2)	Fire-fighting vehicles	A
2.10	Determination of geometric dimensions	TÚPO guideline No. 07-15 (ČSN 30 0552; ČSN EN 1846-2)	Fire-fighting vehicles	-
2.11*	Determination of turning diameters and length dimensions	TÚPO Guideline No. 48-16 (ČSN 30 0552; ČSN EN 1846-2; ČSN EN 14043)	Fire-fighting vehicles	-
2.12	Determination of elongation	ČSN 80 8715, cl. 3.5; ČSN 80 8711, cl. 3.8	Isolated and both-side coated pressure fire-fighting hoses	A
2.13	Determination of deformation at highest testing pressure	ČSN EN 694, cl. 6.1.1	Fire-fighting hoses – Semi-rigid hoses for fixed systems	A, D
2.14	Determination of deformation at normal testing pressure	ČSN EN 14540, cl. 6.1.1	Fire-fighting hoses – Non-percolating layflat hoses for fixed systems	A, D
2.15	Determination of deformation at highest working pressure	ČSN EN 1947, cl. 6.1.1	Fire-fighting hoses - Semi-rigid delivery hoses and hose assemblies for pumps and vehicles	A, D

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Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
<b>3</b>	<b>Flow measurement</b>			
3.1	Flow measurement	ČSN EN 671-1 ed. 2, Annex E.4.1	Hose reels with semi-rigid hose	A, D
3.2	Flow measurement	ČSN EN 671-2 ed. 2, Annex E.4.1	Hose reels with lay-flat hose	A, D
3.3	Reserved			
3.4	Flow measurement	ČSN EN 15182-2, cl. 4.3.2	Hand-held fire-fighting branchpipes – combination branchpipes PN 16	A, D
3.5	Flow measurement	ČSN EN 15182-3, cl. 4.3.2	Hand-held fire-fighting branchpipes – smooth bore jet and/or one fixed spray jet angle branchpipes PN 16	A, D
3.6	Flow measurement	ČSN EN 15182-4, cl. 4.3.2	Hand-held fire-fighting branchpipes – high pressure branchpipe	A, D
3.7	Flow measurement	ČSN EN 1028-2+A1, Annex C	Fire-fighting centrifugal pumps with primer	A, D
<b>4</b>	<b>Mechanical tests</b>			
4.1	Determination of unpackability	ČSN 80 8715, cl. 3.7	Isolated and both-side coated pressure fire-fighting hoses	-
4.2	Determination of abrasion resistance	ČSN 80 8715, cl. 3.9	Isolated and both-side coated pressure fire-fighting hoses	-
4.3	Determination of resistance to surface abrasion	ČSN EN 15889, Annex E	Layflat fire-fighting hoses	D
4.4	Determination of resistance to point abrasion	ČSN EN 15889, Annex F	Semi-rigid fire-fighting hoses	D
4.5	Flexibility test	ČSN EN 15889, Annex Q	Layflat fire-fighting hoses	D
4.6	Determination of adhesion between components	ČSN EN ISO 8033	Rubber and plastic hoses	A, D
4.7	Impact resistance test	ČSN EN 671-1 ed. 2, Annex E.1	Hose reels with semi-rigid hose	D

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<b>Ordinal number<sup>1</sup></b>	<b>Test procedure / method name</b>	<b>Test procedure / method identification<sup>2</sup></b>	<b>Tested subject</b>	<b>Degrees of freedom<sup>3</sup></b>
4.8	Measurement of operating torque	ČSN EN 671-1 ed. 2, Annex E.2	Hose reels with semi-rigid hose	D
4.9	Rotary test	ČSN EN 671-1 ed. 2, Annex F.2	Hose reels with semi-rigid hose	D
4.10	Swing test	ČSN EN 671-1 ed. 2, Annex F.3	Hose reels with semi-rigid hose	D
4.11	Unreeling force	ČSN EN 671-1 ed. 2, Annex F.4	Hose reels with semi-rigid hose	D
4.12	Dynamic braking test	ČSN EN 671-1 ed. 2, Annex F.5	Hose reels with semi-rigid hose	D
4.13	Impact and load resistance test	ČSN EN 671-1 ed. 2, Annex F.6	Hose reels with semi-rigid hose	D
4.14	Impact resistance test	ČSN EN 671-2 ed. 2, Annex E.1	Hose reels with lay-flat hose	D
4.15	Measurement of control moment	ČSN EN 671-2 ed. 2, Annex E.2	Hose reels with lay-flat hose	A, D
4.16	Test of flush	ČSN EN 15182-1, cl. 6.4	Hand-held fire-fighting branchpipes	D
4.17	Drop resistance test	ČSN EN 15182-1, cl. 6.6	Hand-held fire-fighting branchpipes	D
4.18	Twisting moment test for functional connection tightening	ČSN 38 9427, Annex A.3	Fire armatures – Fire-fighting couplings	A
4.19	Seal compression test	ČSN 38 9427, Annex A.6	Fire armatures – Fire-fighting couplings	-
4.20	Controllability test	ČSN 38 9441, Annex A.3	Fire armatures – Double outlet standpipes	A
4.21	Test of resistance against operational overload of the shut-off fitting	ČSN 38 9441, Annex A.4	Fire armatures – Double outlet standpipes	A
4.22	Test of bend	ČSN EN 1147, Annex A, B	Portable ladders for fire service	A, D
4.23	Rung torque test	ČSN EN 1147, Annex C	Portable ladders for fire service	A, D
4.24	Test of supports	ČSN EN 1147, Annex D	Portable ladders for fire service	A, D
4.25	Test of strength	ČSN EN 1147, Annex E, F	Portable ladders for fire service	A, D
4.26	Test of latches	ČSN EN 1147, Annex G	Portable ladders for fire	A, D

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Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
			service	
4.27	Strength test of bars	ČSN EN 1147, Annex H, I, J, K	Portable ladders for fire service	A, D
4.28	Strength test of bottom endings of uprights	ČSN EN 1147, Annex L	Portable ladders for fire service	A, D
<b>5</b>	<b>Operational tests</b>			
5.1	Determination of spray angle	ČSN EN 671-1 ed. 2, Annex E.3	Hose reels with semi-rigid hose	D
5.2	Measurement of throw range	ČSN EN 671-1 ed. 2, Annex E.4.2	Hose reels with semi-rigid hose	A, D
5.3	Determination of spray angle	ČSN EN 671-2 ed. 2, Annex E.3	Hose reels with lay-flat hose	D
5.4	Measurement of throw range	ČSN EN 671-2 ed. 2, Annex E.4.2	Hose reels with lay-flat hose	A, D
5.5	Determination of spray angle	ČSN EN 15182-2, cl. 4.2.4	Hand-held fire-fighting branchpipes – combination branchpipes PN 16	D
5.6*	Determination of throw range	ČSN EN 15182-2, cl. 4.3.3	Hand-held fire-fighting branchpipes – combination branchpipes PN 16	A, D
5.7	Determination of spray angle	ČSN EN 15182-3, cl. 4.2.3	Hand-held fire-fighting branchpipes – smooth bore jet and/or one fixed spray jet angle branchpipes PN 16	D
5.8*	Determination of throw range	ČSN EN 15182-3, cl. 4.3.3	Hand-held fire-fighting branchpipes – smooth bore jet and/or one fixed spray jet angle branchpipes PN 16	A, D
5.9	Determination of spray angle	ČSN EN 15182-4, cl. 4.2.4	Hand-held fire-fighting branchpipes – high pressure branchpipe	D
5.10*	Determination of throw range	ČSN EN 15182-4, cl. 4.3.3	Hand-held fire-fighting branchpipes – high pressure branchpipe	A, D
5.11	Test of permanent running	ČSN EN 1028-2+A1, Annex F	Fire-fighting centrifugal pumps with primer	A, D

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5.12	Functional test	ČSN EN 13731, cl. 6.2	Lifting bags	D
5.13*	Determination of dynamic driving parameters – optically	TÚPO Guideline No. 03-14, Procedure A (ČSN 30 0556; ČSN EN 1846-2)	Fire-fighting vehicles	D
5.14*	Determination of dynamic driving parameters – telemetrically (GPS)	TÚPO Guideline No. 03-14, Procedure B (ČSN 30 0556; ČSN EN 1846-2)	Fire-fighting vehicles	D
5.15*	Determination of working time	ČSN EN 14043, Annex B	Turntable ladders with combined movements	D
5.16*	Static stability	ČSN EN 14043, cl. 5.1.2.2.1	Turntable ladders with combined movements	D
5.17*	Dynamic stability	ČSN EN 14043, cl. 5.1.2.2.2	Turntable ladders with combined movements	D
5.18*	Test for intermediate use without support of the ladder set	ČSN EN 14043, cl. 5.1.3.2	Turntable ladders with combined movements	D
5.19*	Residual load test	ČSN EN 1777, cl. 6.1.3	Hydraulic platforms for firefighting and rescue services	D
5.20*	Static overload test	ČSN EN 1777, cl. 6.1.4	Hydraulic platforms for firefighting and rescue services	D
5.21*	Dynamic tests	ČSN EN 1777, cl. 6.1.6.1	Hydraulic platforms for firefighting and rescue services	D
<b>6</b>	<b>Fire extinguishants tests</b>			
6.1*	Fire performance tests	ČSN EN 3-7+A1, Annex I, L, M	Portable fire extinguishers	A, D
6.2*	Fire performance tests	ČSN EN 1866-1, cl. 8	Mobile fire extinguishers	A, D
6.3	Determination of pour density	ČSN EN 615, Annex A	Fire extinguishing media – powders (other than class D powders)	A, D
6.4	Screen analysis	ČSN EN 615, Annex B	Fire extinguishing media – powders (other than class D powders)	A, D
6.5	Test of resistance to sintering and agglomeration	ČSN EN 615, Annex C	Fire extinguishing media – powders (other than class D powders)	A, D
6.6	Water repellence test	ČSN EN 615, Annex D	Fire extinguishing media	A, D

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			– powders (other than class D powders)	
6.7	Determination of moisture content	ČSN EN 615, Annex E	Fire extinguishing media – powders (other than class D powders)	A, D
6.8	Determination of density – oscillating U-tube	TÚPO Guideline No. 31-13 (ASTM D 4052-18a)	Liquids up to 3 g/cm <sup>3</sup>	A, D
6.9*	Fire performance tests	ČSN EN 1568-1 ed. 2, cl. 11	Medium expansion foam concentrates for surface application to water-immiscible liquids	A, D
6.10*	Fire performance tests	ČSN EN 1568-2 ed. 2, cl. 11	High expansion foam concentrates for surface application to water-immiscible liquids	A, D
6.11*	Fire performance tests	ČSN EN 1568-3 ed. 2, cl. 11	Low expansion foam concentrates for surface application to water-immiscible liquids	A, D
6.12*	Fire performance tests	ČSN EN 1568-4 ed. 2, cl. 11	Low expansion foam concentrates for surface application to water-miscible liquids	A, D
6.13	Determination of expansion, drainage time and temperature conditioning	ČSN EN 1568-1 ed. 2, cl. 10	Medium expansion foam concentrates for surface application to water-immiscible liquids	A, D
6.14	Determination of expansion, drainage time and temperature conditioning	ČSN EN 1568-2 ed. 2, cl. 10	High expansion foam concentrates for surface application to water-immiscible liquids	A, D
6.15	Determination of expansion, drainage time and temperature conditioning	ČSN EN 1568-3 ed. 2, cl. 10	Low expansion foam concentrates for surface application to water-immiscible liquids	A, D
6.16	Determination of expansion, drainage time and temperature conditioning	ČSN EN 1568-4 ed. 2, cl. 10	Low expansion foam concentrates for surface application to water-miscible liquids	A, D
6.17	Determination of the amount of sediment	ČSN EN 1568-1 ed. 2, cl. 4	Medium expansion foam concentrates for surface	A, D

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			application to water-immiscible liquids	
6.18	Determination of the amount of sediment	ČSN EN 1568-2 ed. 2, cl. 4	High expansion foam concentrates for surface application to water-immiscible liquids	A, D
6.19	Determination of the amount of sediment	ČSN EN 1568-3 ed. 2, cl. 4	Low expansion foam concentrates for surface application to water-immiscible liquids	A, D
6.20	Determination of the amount of sediment	ČSN EN 1568-4 ed. 2, cl. 4	Low expansion foam concentrates for surface application to water-miscible liquids	A, D
6.21	Determination of pH potentiometrically	TÚPO Guideline No. 04-05 (ČSN EN 1568-1 ed. 2, cl. 7; ČSN EN 1568-2 ed. 2, cl. 7; ČSN EN 1568-3 ed. 2, cl. 7; ČSN EN 1568-4 ed. 2, cl. 7; ČSN 68 1151)	Medium, high and low expansion foam concentrates for surface application to water-immiscible liquids, low expansion foam concentrates for surface application to water-miscible liquids	A, D
6.22	Determination of surface tension tensiometrically	ČSN EN 1568-1 ed. 2, cl. 8; ISO 304	Medium expansion foam concentrates for surface application to water-immiscible liquids	A, D
6.23	Determination of surface tension tensiometrically	ČSN EN 1568-2 ed. 2, cl. 8; ISO 304	High expansion foam concentrates for surface application to water-immiscible liquids	A, D
6.24	Determination of surface tension tensiometrically	ČSN EN 1568-3 ed. 2, cl. 8; ISO 304	Low expansion foam concentrates for surface application to water-immiscible liquids	A, D
6.25	Determination of surface tension tensiometrically	ČSN EN 1568-4 ed. 2, cl. 8; ISO 304	Low expansion foam concentrates for surface application to water-miscible liquids	A, D

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<b>7</b>	<b>Corrosion tests</b>			
7.1	Accelerated ageing test	ČSN 80 8715, cl. 3.13	Isolated and both-side coated pressure fire-fighting hoses	A
7.2	Accelerated ageing test	ČSN EN 15889, Annex D.1	Layflat fire-fighting hoses	A, D
7.3	Accelerated ageing test	ČSN EN 15889, Annex D.2	Semi-rigid fire-fighting hoses	A, D
7.4	Determination of loss of plasticizers	TÚPO Guideline No. 05-05 (ČSN EN ISO 176, cl. 6.2)	Pressure fire-fighting hoses	-
7.5	Corrosion resistance test	ČSN EN 671-1 ed. 2, Annex D	Hose reels with semi-rigid hose	A, D
7.6	Corrosion resistance test	ČSN EN 671-2 ed. 2, Annex D	Hose reels with lay-flat hose	A, D
<b>8</b>	<b>Thermal resistance tests</b>			
8.1	Determination of flame resistance	ČSN 80 8715 cl. 3.11	Isolated and both-side coated pressure fire-fighting hoses	-
8.2	Determination of flexibility at low temperature	ČSN EN 15889, Annex G.1	Fire-fighting hoses – Non-percolating layflat hoses	D
8.3	Resistance to contact heat	ČSN EN 15889, Annex H	Pressure fire-fighting hoses	D
8.4	Heat resistance test	ČSN EN 15182-1, cl. 6.5.2	Hand-held fire-fighting branchpipes	A, D
8.5	Frost resistance test	ČSN EN 15182-1, cl. 6.5.3	Hand-held fire-fighting branchpipes	A, D
<b>9</b>	<b>Fire technical tests</b>			
9.1	Determination of optical density by a single - chamber test	ČSN EN ISO 5659-2	Plastics and assembly materials	A, D
9.2	Determination of burning behaviour by oxygen index - Ambient-temperature test	ČSN EN ISO 4589-2	Plastics	A, D
9.3	Determination of burning behaviour by oxygen index - Elevated-temperature test	ČSN EN ISO 4589-3	Plastics	A, D

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Technickým ústavem požární ochrany  
CAB number 1011.2, TÚPO Testing Laboratory  
Písková 42, 143 01 Praha 4 – Modřany**

Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
9.4	Determination of combustibility	TÚPO Guideline No. 08-09 (ČSN 64 0149)	Solid substances	-
9.5	Determination of substances behaviour during heating by a high-pressure differential scanning calorimetry	TÚPO Guideline No. 35-14 (ČSN EN ISO 11357-1)	Solid substances and materials	-
9.6	Determination of the spontaneous ignition behaviour	ČSN EN 15188	Combustible dust and granular materials	A, D
9.7	Determination of the auto ignition temperature	ČSN EN ISO/IEC 80079-20-1, cl. 7	Flammable liquids	D
9.8	Determination of flash and fire points by Cleveland open cup method	ČSN EN ISO 2592	Petroleum products	A, D
9.9	Determination of spontaneous ignition behaviour - Mackey test	TÚPO Guideline No. 06-09 (ASTM D3523-92:2012)	Liquid and pasty substances	-
9.10	Determination of flash point by Rapid Equilibrium Closed Cup method	ČSN EN ISO 3679	Paints, varnishes, adhesives, solvents, petroleum products, diesel, kerosene, fatty acid methyl esters	D
9.11	Determination of thermal properties by DSC method	TÚPO Guideline No. 45-25, Procedure A (ČSN EN ISO 11357-1; ČSN EN ISO 11357-3)	Solid substances and materials	-
9.12	Thermogravimetric analysis (TGA)	TÚPO Guideline No. 45-25, Procedure B (ČSN EN ISO 11358-1)	Solid substances and materials	-
<b>10</b>	<b>Chemical tests</b>			
10.1	Chemical analysis of flammable liquid accelerants by gas chromatography (GC/MS) - solid phase microextraction (SPME)	TÚPO Guideline No. 02-13, Procedure A (ASTM E-1388)	Fire scene samples	-
10.2	Chemical analysis of	TÚPO Guideline No. 02-13, Procedure B	Fire scene samples	-

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Ordinal number <sup>1</sup>	Test procedure / method name	Test procedure / method identification <sup>2</sup>	Tested subject	Degrees of freedom <sup>3</sup>
	flammable liquid accelerants by gas chromatography (GC/MS) - direct spraying	(ASTM E-1388)		
10.3	Determination of chemical composition by gas chromatography (GC/MS+TCD)	TÚPO Guideline No. 32-14	Gas and liquid fire extinguishing agents, foaming agents	-
10.4	Determination of purity by gas chromatography (GC/MS+TCD)	TÚPO Guideline No. 33-14	Gas and liquid fire extinguishing agents, foaming agents	-
10.5	Determination of non-volatile residue by gas chromatography (GC/MS)	TÚPO Guideline No. 34-14	Gas and liquid fire extinguishing agents, foaming agents	-
10.6	Alkalimetric determination of acidity	TÚPO Guideline No. 38-15	Gas and liquid fire extinguishing agents, foaming agents	-
10.7	Gravimetric determination of sediment	TÚPO Guideline No. 39-15	Gas and liquid fire extinguishing agents, foaming agents	-
10.8	Coulometric determination of water	TÚPO Guideline No. 40-15	Gas and liquid fire extinguishing agents, foaming agents	-
10.9	Qualitative chemical analysis by FTIR	TÚPO Guideline No. 04-09 (ASTM E1252-98:2013)	Solids and liquids	-
10.10	Reserved			
10.11	Qualitative chemical analysis by X-ray fluorescence spectroscopy	TÚPO Guideline No. 24-18, Procedure A (ČSN EN 15309)	Solids and liquids	-
10.12	Quantitative chemical analysis by X-ray fluorescence spectroscopy	TÚPO Guideline No. 24-18, Procedure B (ČSN EN 15309)	Aluminium alloys	-

<sup>1</sup> asterisk at the ordinal number identifies the tests, which the laboratory is qualified to carry out outside the permanent laboratory premises

<sup>2</sup> if the document identifying the test procedure is dated, only these specific procedures are used. If the document identifying the test procedure is not dated, the latest valid edition of the specified procedure is used (including any changes)

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<sup>3</sup> degrees of freedom: A – Flexibility concerning materials/products (subject of the test), D – Flexibility concerning the method

The laboratory can modify the test procedures with the specified degree(s) of freedom in the scope of accreditation while maintaining the principle of measurement. If no degree of freedom is specified, the laboratory cannot apply a flexible approach to the scope of accreditation for the test.

**Sampling:**

<b>Ordinal number</b>	<b>Sampling procedure name</b>	<b>Sampling procedure identification<sup>1</sup></b>	<b>Subject of sampling</b>
1	Targeted representative sampling for determination of causal connection with fire	TÚPO Guideline No. 11-08	Fire scene samples

<sup>1</sup> if the document identifying the sampling procedure is dated, only these specific procedures are used. If the document identifying the sampling procedure is not dated, the latest valid edition of the specified procedure is used (including any changes)

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*"This document is an appendix to the certificate of accreditation. In case of any discrepancies between the English and Czech versions, the Czech version shall prevail, both for the certificate appendix and the certificate itself. "*