

Accredited entity according to ČSN EN ISO/IEC 17025:2018:

**Explosia, a.s.**  
Analytics and Testing Department  
Semtín 107, 530 02 Pardubice 2

**Testing Laboratory Locations:**

- |    |                                      |                              |
|----|--------------------------------------|------------------------------|
| 1. | <b>Ballistics Testing Laboratory</b> | Semtín 107, 530 02 Pardubice |
| 2. | <b>Safety Engineering Laboratory</b> | Semtín 107, 530 02 Pardubice |
| 3. | <b>GC/MS and HPLC Laboratory</b>     | Semtín 107, 530 02 Pardubice |

1. **Ballistics Testing Laboratory**

**Tests:**

Ordinal number <sup>1</sup>	Test procedure/method name	Test procedure/method identification <sup>2</sup>	Tested object
1.	Maximum pressure test of powder gases	ČSN 39 5105, Test No. 16 ČOS 130506	Smokeless powders for weapons up to 30 mm caliber (including)
2.	Test of projectile velocity	ČSN 39 5105, Test No. 17 ČOS 130506	Smokeless powders for weapons up to 30 mm caliber (including)
3.	Test of barrel pressure-time dependence	PI No. 104 (ČSN 39 5105, Test No. 21)	Smokeless powders for weapons up to 30 mm caliber (including)
4.	Combined test of the electronic measurement of pressure, velocity and operating time	PI No. 103 (ČSN 39 5105, Test No. 16, 17, 21, ČOS 130506)	Smokeless powders for weapons up to 30 mm caliber (including)
5.	Ballistic test – measurement of pull and pressure	PI No. 107	Pressure generator Pull generator

<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 edition of the specified procedure is used (including any changes).



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2. Safety Engineering Laboratory

Tests:

Ordinal number <sup>1</sup>	Test procedure/method name	Test procedure/method identification <sup>2</sup>	Tested object
6.	Determination of sensitiveness to hammer impact	PI No. 201 (Recommendations <sup>3)</sup> - Test 3(a) <sup>4)</sup> Council Regulation (EC) No 440/2008, A.14, p. 1.6.22 <sup>4)</sup> ČSN EN 13631-4)	Explosives, explosive substances
7.	Determination of sensitiveness to friction	PI No. 202 (Recommendations <sup>3)</sup> - Test 3(b) <sup>3)</sup> Council Regulation (EC) No 440/2008, A.14, p. 1.6.32 <sup>4)</sup> ČSN EN 13631-3)	Explosives, explosive substances
8.	Thermal stability test at 75°C	PI No. 203 (Recommendations <sup>3)</sup> - Test 3(c) - Test 4 (a))	Explosives, explosive objects
9.*	Determination of mass explosion capability	PI No. 204 (Recommendations <sup>3)</sup> - Test 6(a) - Test 6 (b))	Explosives, explosive objects
10.*	Test of sensitivity to external fire <sup>5)</sup>	PI No. 205 (Recommendations <sup>3)</sup> - Test 3(d) - Test 5(c) - Test 6(c))	Explosives
11.	Flash point test	PI No. 206 (ČSN 66 8063)	Explosives
12.*	Test of sensitivity to external heat stimulus – Koen tests <sup>5)</sup>	PI No. 207 (Recommendations <sup>3)</sup> - Test 1(b) - Test 2(b) Council Regulation (EC) No 440/2008, A.14, p. 1.6.12 <sup>4)</sup> )	Explosives, explosive substances
13.*	Test of sensitivity to 12m fall <sup>5)</sup>	PI No. 208 (Recommendations <sup>3)</sup> - Test 4(b) <sup>4)</sup> )	Explosives, explosive objects
14.*	Test of untight packaging <sup>5)</sup>	PI No. 211 (Recommendations <sup>3)</sup> Test 6(d))	Explosives, explosive objects

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- <sup>3</sup> Recommendations on the Transport of Dangerous Goods – Manual of Test and Criteria, United Nations, 2009 (ST/SG/AC.10/11/Rev.5)
- <sup>4</sup> Council Regulation (EC) No 440/2008, laying down test methods pursuant to Regulation (EC) No 1907/2006 of the European Parliament and of the Council
- <sup>5</sup> The test is carried out in the premises of Explosia a.s. – Shooting range

3. GC/MS and HPLC Laboratory

Tests:

Ordinal number <sup>1</sup>	Test procedure/method name	Test procedure/ method identification <sup>2</sup>	Tested object
15.	Quantitative determination of centralite I, centralite II, akardite II by gas chromatography/ mass spectrometry method	PI No. 301	Smokeless powders
16.	Quantitative determination of nitroglycerine, diphenylamine, 2-nitrodiphenylamine by liquid chromatography method	PI No. 302	Smokeless powders

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Explanations:

PI Operating Instructions (Internal document of the TL)  
ČOS Czech Defence Standard

