



INSTITUT PRO TESTOVÁNÍ A CERTIFIKACI, a. s.

třída Tomáše Bati 299, Louky, 763 02 Zlín, Czech Republic

Testing Laboratory No. 1004

accredited by ČIA according to ČSN EN ISO/IEC 17025



Testing laboratory * Calibration laboratory * Product certification body * Quality management systems certification body
Inspection body * Authorized body * Notified body

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ACCREDITED LABORATORY TEST REPORT ref. No. 412106607

Client: ZPS - SLÉVÁRNA, a.s.
Company registration number: 47908319

Address: třída 3. května 1172, Malenovice, 763 02 Zlín, Czech Republic

Sample: Sample of material EN-GJL-250

Sample received on: June 13, 2016

Report elaborated by: Ing. David Grebeníček

Place and date of issue: Zlín, June 14, 2016



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Ing. Jiří Samsonek, Ph.D.
Head of Accredited Testing Laboratory

Note: The results given in this Test Report apply only to the sample tested by our laboratory!
Without a written consent by Institut pro testování a certifikaci, a.s. Zlín, the Test Report may not be reproduced unless as a whole!



Description and identification of samples:

Table I - Sample description and identification

ITC's identification number	Sample identification by client	Description of submitted sample
412106607-01	Sample of material EN-GJL-250	Cut of metal part



Pic. 1 – Sample 412106607-01

Sampling method used:

The samples were supplied to the laboratory by the client. The laboratory is not responsible for mistakes caused by the wrong way of sampling.

Work requested:

The client claimed determination of Pb, Cd, Hg, Cr(VI), polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE).

Testing method used:

1. Determination of Pb, Cd, Hg, Cr and Br by XRF according to ČSN EN 62321, part 6
2. Determination polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) through calculation from Br content
3. The test for the presence of hexavalent chromium Cr(VI) according to the ČSN EN 62321, Annex B

Test conditions:

1. Methods "Oxford: Metal Majors + Traces"
2. The amount of the polybrominated biphenyls and polybrominated diphenyl ethers (PBBs and PBDEs) was calculated from the total bromine content in the sample. The calculation is done for the monobromoderivates that have the most unfavourable ratio between weights of the bromine vs. weights of the whole substance. This calculated amount is the maximum theoretical content of PBBs and PBDEs in the sample.
3. The presence of hexavalent chromium Cr(VI) was tested by method of drop reaction (B.5.1)

Further information required by the standard/standards and not given in this Test Report are available at a request at the Laboratory.

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Testing laboratory:

All tests were performed in Institut pro testování a certifikaci, a.s. Zlín.

Test results:

The test results are given in the following tables.

Table II – Sample 412106607-01 – test results

Parameter	Unit	Test results ¹⁾	Uncertainty ²⁾	Limit ³⁾
Pb	w/w %	< 0,01	-	0,1
Cd		< 0,005	-	0,01
Hg		< 0,01	-	0,1
Cr (total)		0,0624	0,0063	-
Cr(VI) ⁶⁾		negative	-	0,1
Br		< 0,01	-	
∑PBB ⁴⁾		< 0,04	-	0,1
∑PBDE ⁵⁾		< 0,04	-	0,1

Notes to the table I:

- 1) Symbol "<" means less than the limit of detection of used analytical method
- 2) Estimation of uncertainty type B, 10 % from the obtained value
- 3) Limit value according to the requirements of the Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment
- 4) Sum of PBB congeners
- 5) Sum of PBDE congeners
- 6) The drop test for Cr(VI) presence was done on this sample; "Negative" = Cr(VI) not detected, "Positive" = Cr(VI) detected

Comment on the results of the tests - beyond the scope of accreditation:

The tested sample complies with the requirements of the Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Interpretations and comment on the results of the tests carried out:

Dipl. Ing. David Grebeníček

Ing. Věra Vilímková
Head of the laboratory of
analytical chemistry and microbiology**Note: The results given in this Test Report apply only to the sample tested by our laboratory!**

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