



INSTITUTE OF NON-FERROUS METALS

Analytical Chemistry Department
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CERTIFICATE OF ANALYSIS

Hard Lead

The average results of chemical analyses in wt %

Element	No.	PE 1	PE 2	PE 3	PE 4	PE 5	PE 6
Sn		0,59	0,50	0,38	0,31	0,21	0,40
Sb		0,053	0,27	0,49	0,70	0,89	0,53
Pb		the rest	the rest	the rest	the rest	the rest	the rest

Director of the Institute

Prof. Ph.D. Zbigniew Śmieszek

The confidence intervals in wt % at the probability level of 0,05

Element No.	PE 1	PE 2	PE 3	PE 4	PE 5	PE 6
Sn	0,011	0,020	0,030	0,031	0,011	0,035
Sb	0,0040	0,030	0,025	0,035	0,040	0,040

Analytical methods applied:

Sn - titration, atomic absorption

Sb - titration, atomic absorption

The chemical analyses have been carried out in industrial laboratories and at the Institute of Non-Ferrous Metals.

The set consists of 6 reference materials in form of discs 40 mm in diameter and 28 mm in height.