



# INSTITUTE OF NON-FERROUS METALS

Analytical Chemistry Department

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CERTIFICATE OF ANALYSIS

*MN 101 alloy*

*The average results of chemical analyses in wt %*

Element <sup>No</sup>	NA 1	NA 2	NA 3	NA 4
Ni	7,19	9,05	10,35	12,15
Mn	1,51	1,03	0,60	0,21
Fe	2,52	2,03	1,15	0,50
Pb	0,081	0,056	0,035	0,0066
Zn	0,80	0,55	0,30	0,019
S	(0,081)	(0,065)	(0,036)	(0,0069)
C	(0,020)	(0,023)	(0,019)	(0,012)
Cu	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	NA 1	NA 2	NA 3	NA 4
Ni	0,046	0,066	0,040	0,071
Mn	0,025	0,025	0,012	0,012
Fe	0,026	0,024	0,018	0,015
Pb	0,0020	0,017	0,0011	0,00029
Zn	0,015	0,011	0,012	0,0015
S	0,0025	0,0012	0,0014	0,00056
C	----	----	0,0025	0,0018

*Analytical methods applied:*

*Ni - gravimetric, titration*

*Mn - atomic absorption*

*Fe - atomic absorption*

*Pb - atomic absorption*

*Zn - atomic absorption*

*S - method of combusting and infrared determination of SO<sub>2</sub>*

*C - method of combusting and infrared determination of CO<sub>2</sub>*

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

*The set consists of 4 reference materials in form of discs 40 mm in diameter and 25 mm in height.*