

Metal and Quality, LLC
Certified Reference Material
Certificate of Chemical Analysis
CRM CX02a
Alloy Steel



INFORMATION

Certified Reference Material of Alloy Steel CX02a (DSZU No.083.16-06) produced in conformity to the certificate No.1017/2 authorized by State Committee of Ukraine for Technical Regulation and Consumer Policy.

APPLICABILITY

The CRM CX02a is intended for verification, calibration of measuring instruments, for metrological certification and control of measurements methods at definition of chemical compound of steel using chemical and physical-chemical methods.

CERTIFIED VALUES (mass fraction in %)

Elements	C	Si	Mn	S	P	Cr	Ni	Cu	N
Certified	0.092	0.86	2.12	0.0164	0.022	0.028	0.014	0.016	0.0070
Uncertainty C(95%)	0.002	0.01	0.02	0.0003	0.001	0.002	0.001	0.001	0.0002

Uncertainty estimated as the half width confidence interval C (95%) of Student's t-distribution.

Information values (mass fraction in %)

Mo	Al	Ti	V	Co	Pb	Sn	W	Sb	Zn	B
0.004	0.004	0.002	0.004	0.003	0.0003	0.001	0.01	0.001	0.0003	0.002

CERTIFICATE VALIDITY February, 2028

DATE OF ISSUE February, 2013

SPECIFICATIONS CRM made as granules from wire in diameter of 0.8 mm, length 0.5-1.5 mm

DELIVERY CRM in glass (250 g), packed into a box and Certificate

STORAGE Reference material should be stored in a tightly closed bottle in a dry place. When the bottle is opened for analysis, it should be stoppered immediately after use.

SAFETY CRM CX02a and packing does not contain explosives, radioactive substances and substances which might influence health and the environment

PARTICIPATING LABORATORIES

ArcelorMittal Kriviy Rig, PJSC (Ukraine)
Azovstal, PJSC, (Ukraine)
Ilyich Iron and Steel Works of Mariupol, PJSC (Ukraine)
Zaporizhstal, PJSC (Ukraine)
Dneprospetsstal, PJSC (Ukraine)
DMKD, PJSC (Ukraine)
Khartsyzsk Tube Works, PJSC (Ukraine)
Ukrainian Special Steels Institute, SE (Ukraine) Scientific
Research Tube Institute, SE (Ukraine)
Powder Metallurgy Plant, SE (Ukraine)
Scientific Research Centre Energostal, SE (Ukraine)
Institute for Certified Reference Materials, CJSC (Russia)
Byelorussian Steel Works (Belarus)
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