

Metal and Quality, LLC
Reference Material
Certificate of Analysis
CA02a
Bearing Steel



INFORMATION Reference Material CA02a is intended for calibration of analytical instruments based on combustion and inert gas fusion methods

CERTIFIED VALUES (mass fraction in %)

Elements	N	S	C
Certified	0.0030	0.0021	1.03
SD	0.0001	0.0002	0.01

Approximate oxygen content 0.001%

SPECIFICATION The sample is available in the form of nickel-plated pins weighing 1 gram with a diameter of 4.5 mm and a length of 8 mm.

Reference Material CA02a and Certified Reference Material CA02 are made from one steel ingot. This ingot was obtained by electroslag and vacuum-arc remelting of bearing steel, followed by rolling and drawing into a wire, from which polished nickel-plated pins were made

Metrological characteristics were obtained in two laboratories on the basis of multiple (thirty) measurements of the content of components in RM CA02a compared with CRM CA02. The uncertainty was estimated as a standard deviation of the mean values of interlaboratory comparisons, taking into account the uncertainty of CRM CA02 certified values

NOTES Better accuracy can be obtained by weighing each pin before analysis

Samples do not require pre-cleaning. Using clean metallic tweezers, the pin is removed from the jar and placed directly into the balance and boat devices of analyzer

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

TRACEABILITY The characterization of material has been achieved by means interlaboratory experiment in accordance to ISO Guide 35. In each laboratory applied the methods of analysis of their choice.

DELIVERY 150 pins of 1 gram in a glass jar and a certificate of analysis

SAFETY A Safety Data Sheet (SDS) is not required for CA02a. Reference Material CA02a and packing does not contain hazardous chemical, explosives and radioactive substances and substances which might influence health and the environment

PARTICIPATING LABORATORIES Dneprospetsstal (DSS) PJSC Ukraine, Zaporizhstal PJSC Ukraine

THE METHODS USED Combustion with coulometric and infrared (C, S), inert gas fusion with thermal conductivity (N)

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