

Metal and Quality, LLC
CERTIFICATE OF ANALYSIS
RM C044a
Low Alloy Steel



INFORMATION

Reference Material C044a is intended for calibration of measuring instruments at determination of chemical composition of low alloy steels using Optical Emission Spectrometry

DEVELOPER AND MANUFACTURER

Metal and Quality, LLC

METROLOGICAL CHARACTERISTICS, mass fraction in % (bold)

C044a	C	S	Mn	P	Si	Cr	Ni	Cu	Al	W	V	Mo	Ti	Co	Nb	Sn	B	As	Ca	N
	0.299	0.0039	1.07	0.016	1.00	0.985	1.44	0.184	0.026	<i>0.006</i>	0.006	0.022	0.024	0.020	0.0031	0.010	<i>0.0006</i>	<i>0.008</i>	<i>0.001</i>	0.0095
Uncertainty	0.009	0.0005	0.01	0.001	0.01	0.008	0.02	0.005	0.001	-	0.001	0.004	0.006	0.001	0.0005	0.002	-	-	-	0.0008

Italics - indicative value

SPECIFICATION

Reference material C044a is made of hot rolled steel in the form of cylinders with a diameter of 40 mm and a thickness of 25 mm.

The metrological characteristics were obtained on the basis of multiple comparative measurements component content in RM C044a and in CRM C044 by OES and combustion (C, S, N) methods. The uncertainty was estimated as a standard deviation of the mean values of interlaboratory comparisons, taking into account the uncertainty of CRM C044 certified values

PARTICIPATING LABORATORIES

Dneprospetsstal (DSS) PJSC, Ukraine
Ferrox LLC, Ukraine
Iron and Steel Works Zaporizhstal OJSC, Ukraine
Metal and Quality LLC, Ukraine
Zaporozhye Steel Plant LLC, Ukraine

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EXPIRY DATE

Unlimited

DELIVERY

RM packed into box and Certificate

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