

**CERTIFICATE OF ANALYSIS**  
**CRM MHCX 03**  
**Silico-Manganese**

**INFORMATION**

Certified Reference Material of Silico-Manganese MHCX03 (Ukrainian Branch Standard Sample GSZU No. 3-182-2010).  
Produced in conformity to the Certificate No. 27.35.20.150-164 from 20.01.2010, authorized by the Ministry of Industrial Policy of Ukraine

**APPLICABILITY**

The CRM MHCX03 is intended for control of measurements errors, calibration of measuring means at definition of chemical compound of Silico-Manganese

**DEVELOPER AND MANUFACTURER**

State enterprise "Ukrainian Special Steels Institute" in cooperation with Joint-Stock Company "Metal and Quality"

**CERTIFIED VALUES (BOLD)**

Elements	C	S	Mn	Si	P	Fe	Cu	Ni	Ti	Cr	Al	B
Certified value (mass fraction in % by weight)	0,04	0,004	65,5	29,2	0,047	4,92	0,13	0,11	0,49	0,20	0,013	0,009
Estimate of uncertainty (confidence 0,95)	0,01	0,001	0,2	0,3	0,002	0,10	0,01	0,02	0,03	0,02	-	-

**VALIDITY** Ten years

**SPECIFICATION** The size of particles is less than 160 micron

**DELIVERY** CRM in glass (100 g), packed into a box and the Certificate

**DATE OF ISSUE** January, 2010

**STORAGE and SAFETY** The material should be kept in a dry room in the closed bottle. The reference material and packing do not contain substances which can directly influence health. Do not inhale. It is necessary to handle cautiously with glass

**PARTICIPATING LABORATORIES**

OJSC "DMKD"  
OJSC "Zaporizhstal"  
OJSC "Dneprospetsstal"  
State Enterprise "Ukrainian Special Steels Institute"  
OJSC "Azovstal"  
OJSC "Nikopol Ferro Alloy Plant"  
OJSC "Alchevsk Iron & Steel Works", Ukraine  
OJSC «ArcelorMittal Kiyv Rig»  
OJSC "Stahancv Ferro Alloys Plant"  
OJSC "Zaporozhye Ferro Alloys Plant"

**CONTACTS**

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