National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material 131e

Low Carbon Silicon Steel

(In Cooperation with the American Society for Testing and Materials)

This Standard Reference Material (SRM) is a low alloy silicon steel that is certified for carbon and sulfur. The nominal silicon content is 3 percent. SRM 131e is in chip form and is sized between 0.5 mm and 1.0 mm sieve openings (35 and 18 mesh). It is intended primarily for use in checking and/or calibrating carbon/sulfur analyzers.

Element	Carbon[a]	Sulfur[a]
	% by Weight	
Certified Value[1]	0.0035	0.0004
Estimated Uncertainty[2]	0.0003	0.0002
Analyst		
1	0.0036	0.0005
2	0.0035	0.0003
3	0.0034	0.0005
4	0.0031	0.0006
5	0.0037	0.0004
6	0.0036	0.0003
7	0.0035	0.0004
8	0.0037	0.0004

[1]The certified value listed for an element is the present best estimate of the "true" value based on results of the cooperative program for certification.

[2]Estimated uncertainty includes method imprecision, bias among methods, and material variability.

[a]Combustion-infrared detection.

The overall coordination of the technical measurements leading to certification were performed under the direction of J.I. Shultz, Research Associate, ASTM/NIST Research Associate Program.

The technical and support aspects involved in the preparation, certification, and issuance of this Standard Reference Material were coordinated through the Standard Reference Materials Program by P.A. Lundberg.

Gaithersburg, MD 20899
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William P. Reed, Chief
Standard Reference Materials Program

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