

101.1 - Plain Carbon Steels (chip form)

These SRMs are intended for checking chemical methods of analysis. They consist of steel alloys selected to provide a wide range of analytical values for elements. They are furnished in 150-g units (unless otherwise noted) as chips usually sized between 0.4 mm to 1.2 mm, prepared from selected portions of commercial ingots.

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

Element Composition (mass fraction, in %)

SRM	Description	Unit of Issue	Aluminum (total) (Al)	Carbon (C)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Manganese (Mn)	Molybdenum (Mo)
8k	Bessemer Steel (Simulated) 0.1 % Carbon (chip form)	150 g		<i>0.0806</i>	<i>0.0467</i>		<i>0.0200</i>	<i>0.5040</i>	<i>0.0397</i>
12h	Basic Open-Hearth Steel, 0.4% Carbon	150 g	(0.038)	0.407	0.074		0.073	0.842	0.006
13g	0.6% Carbon Steel	150 g	0.048	0.613	0.050		0.066	0.853	
14g	Carbon Steel (AISI 1078)	150 g	0.025	0.735	0.081		0.047	0.456	0.011
16f	Basic Open-Hearth Steel, 1% Carbon (chip form)	150 g		0.97	0.020	0.003	0.006	0.404	0.003
19h	Basic Electric Steel, 0.2% Carbon	150 g	0.002	0.215	0.173		0.466	0.393	0.038
20g	AISI 1045 Steel	150 g	0.040	0.462	0.036		0.034	0.665	0.008
152a	Basic Open-Hearth Steel 0.5% Carbon (Tin Bearing)	150 g		0.486	0.046		0.023	0.717	0.036
178	0.4C Basic Oxygen Furnace Steel	150 g		0.395	0.016		0.032	0.824	0.003
368	Carbon Steel (AISI 1211) (chip form)	150 g		<i>0.090</i>	<i>0.0295</i>		<i>0.00984</i>	<i>0.8238</i>	<i>0.00311</i>

- Certified values are normal font
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Element Composition (mass fraction, in %)

SRM	Description	Unit of Issue	Nickel (Ni)	Nitrogen (N)	Phosphorus (P)	Silicon (Si)	Sulfur (S)	Tin (Sn)	Vanadium (V)
8k	Bessemer Steel (Simulated) 0.1 % Carbon (chip form)	150 g	<i>0.1174</i>		<i>0.0956</i>	<i>0.0576</i>	<i>0.0775</i>		0.0145
12h	Basic Open-Hearth Steel, 0.4% Carbon	150 g	0.032	0.006	0.018	0.235	0.027		0.003
13g	0.6% Carbon Steel	150 g	0.061		0.006	0.355	0.031		0.001
14g	Carbon Steel (AISI 1078)	150 g	0.030		0.006	0.232	0.019		0.0008
16f	Basic Open-Hearth Steel, 1% Carbon (chip form)	150 g	0.008		0.014	0.214	0.026		0.002
19h	Basic Electric Steel, 0.2% Carbon	150 g	0.248		0.016	0.211	0.022		0.003
20g	AISI 1045 Steel	150 g	0.034		0.012	0.305	0.028		0.002
152a	Basic Open-Hearth Steel 0.5% Carbon (Tin Bearing)	150 g	0.056		0.012	0.202	0.030	0.032	0.001
178	0.4C Basic Oxygen Furnace Steel	150 g	0.010		0.012	0.163	0.014		0.001
368	Carbon Steel (AISI 1211) (chip form)	150 g	0.00783	0.01030	0.0827	0.0067	<i>0.1324</i>		<i>0.0013</i>

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