STANDARD SAMPLES FOR SPECTRAL ANALYSIS

CAN BE CUSTOMIZED

INSPECTION CERTIFICATE

MSS-FE01

MSS-CU01

MSS-AL01

- Can be used for calibration and quality control of spectrograph measurement curves
- Can be customized based on the required range of element content
- Supplied with manufacturer inspection certificate

Iron-based standard **(Elemental content*: %)**

Alloy type	Carbon steel	Low alloy steel	Medium alloy steel	Stainless steel	High Cr cast iron	Cast iron	Pig iron
Code	MSS-FE01	MSS-FE02	MSS-FE03	MSS-FE04	MSS-FE05	MSS-FE06	MSS-FE07
C	0.066	0.436	0.322	0.044	1.63	3.59	0.0025
Si	0.136	0.208	0.613	0.392	1.76	3.01	0.021
Mn	0.464	0.495	0.83	1.24	0.722	0.622	0.143
P	0.032	0.016	0.018	0.032	0.041	0.075	0.0084
S	0.017	0.026	0.017	0.0018	0.076	0.0094	0.006
Cr	0.013	1.51	8.63	18.15	33.9	0.213	0.019
Ni	0.0075	0.127	0.148	8.21	0.366	0.204	0.009
Mo	-	0.182	0.016	0.043	0.332	-	0.002
V	-	0.0037	0.014	0.122	0.417	0.102	0.001
Als	-	1.06	0.023	0.014	-	-	-
Alt	-	1.1	0.027	0.016	-	-	-
Cu	0.001	0.096	0.47	0.197	0.223	0.246	0.0041
Co	-	0.0085	0.019	0.222	-	-	0.0016
W	-	0.0026	0.004	0.0091	-	-	0.0019
Ti	-	0.0023	0.076	0.0023	0.055	0.036	0.0005
As	-	-	0.0054	-	-	0.0025	0.0024
B	-	-	0.0002	-	-	-	0.001
Sn	-	-	0.0037	-	-	-	-
Sb	0.0013	-	0.0018	-	-	-	-
Zn	-	-	0.0034	-	-	-	-
Nb	-	-	-	0.002	0.161	-	0.001

*The actual value of the content may be slightly different when delivered, it is detailed in the inspection certificate

Copper-based standard (Elemental content*: %)

Alloy type	Pure copper	Brass	Beryllium bronze	Cu-Sn alloy	Cu-Zn-Si alloy	Cu-Al alloy
Code	MSS-CU01	MSS-CU02	MSS-CU03	MSS-CU04	MSS-CU05	MSS-CU06
Cu	99.97	61.88	97.27	92.69	80.34	81.47
Pb	0.0002	0.108	0.012	0.01	0.0005	0.0003
Zn	0.0002	37.53	0.034	0.44	15.94	0.014
P	0.00003	0.039	0.013	0.109	0.005	0.0014
Fe	0.0009	0.116	0.096	0.071	0.022	3.82
Sn	0.0002	0.0051	0.059	6.00	0.0011	0.0012
Sb	0.00002	0.0046	-	0.0016	0.0002	0.0002
As	0.00011	0.0038	-	-	0.00014	0.0003
Ni	0.00016	0.0032	0.108	0.475	0.0011	4.48
Si	0.0002	0.0029	0.086	0.0008	3.56	0.081
Bi	0.00004	0.0028	-	0.0009	0.0003	-
S	0.0013	-	-	0.0065	-	0.0009
Al	0.0003	-	0.071	0.0001	0.001	9.82
Ag	-	-	-	0.0073	0.001	0.067
Be	-	-	1.94	-	-	-
Mn	-	-	0.003	-	0.0005	-
Co	-	-	0.292	-	0.0003	-
Cd	-	-	-	-	0.0001	-

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Aluminum-based standard (Elemental content*: %)

Alloy type	Pure aluminum	Al-Cu alloy	Al-Mn alloy	Al-Si alloy	Al-Mg alloy	Al-Mg-Si alloy	Al-Zn-Mg-Cu alloy
Code	MSS-AL01	MSS-AL02	MSS-AL03	MSS-AL04	MSS-AL05	MSS-AL06	MSS-AL07
Si	0.09	0.036	0.224	7.29	0.102	1.09	0.03
Fe	0.119	0.052	0.395	0.123	0.282	0.206	0.068
Cu	0.0029	4.2	0.19	0.039	0.052	0.045	1.62
Mn	0.0023	0.589	1.04	0.045	0.371	0.775	0.034
Mg	0.012	1.34	1.16	0.414	4.68	1.07	1.39
Cr	-	0.034	-	0.039	0.041	0.114	-
Ni	-	0.032	0.044	0.035	0.028	0.055	0.031
Zn	0.0063	0.115	0.106	0.041	0.142	0.123	7.26
Ti	0.0044	0.086	0.036	0.147	0.019	0.05	0.035
Zr	-	-	-	-	-	-	0.117
Pb	0.0013	-	-	0.039	-	-	-

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