Sprite SP6 Portable Metal Analyzer

Analytical Programs

The analysis ranges and elements of Iron (Fe) base									
		Fe-000	Fe-001	Fe-002	Fe-003	Fe-004	Fe-005	Fe-006	Fe-007
No	Elements	Global Program	Low Alloy Steel	Cast Iron	Cr/Ni Stainless Steel	High Mn Steel	High Cr Cast Iron	High Ni Cast Iron	High Speed Tool Steel
1	C	0.006-4.5	0.006-1.3	1.8-4.5	0.008-2.5	0.5-2.4	0.9-3.4	1.2-3.8	0.08-2.2
2	Si	0.01-4.2	0.01-2.9	0.2-4.2	0.09-4.0	0.3-1.7	0.2-2.5	0.04-3.5	0.04-1.5
3	Mn	0.001-23	0.03-14	0.06-4.7	0.12-16	5.3-23	0.1-2.4	0.001-6.8	0.04-1.7
4	P	0.0015-0.8	0.002-0.12	0.02-0.8	0.003-0.3	0.01-0.2	0.01-0.3	0.0015-0.56	0.004-0.007
5	S	0.0015-0.46	0.002-0.46	0.003-0.2	0.001-0.4	0.006-0.11	0.01-0.15	0.0015-0.24	0.001-0.06
6	Cr	0.0015-32	0.01-12.5	0.03-2.8	7.4-32	0.08-3.8	0.4-34	0.0015-9.1	1.8-8.1
7	Ni	0.0025-40	0.004-4.4	0.05-5.1	0.8-40	0.04-3.5	0.05-2.75	0.9-36.6	0.07-0.55
8	Mo	0.0015-9.4	0.004-1.76	0.01-2.1	0.08-4.2	0.1-2.0	0.1-4	0.0015-1.5	0.02-9.4
9	Al	0.003-1.7	0.003-0.5	0.002-0.25	0.005-1.7	0.008-0.12			0.005-1.6
10	Cu	0.002-4.5	0.002-0.7	0.06-2.0	0.05-4.5	0.02-0.6	0.06-1.5	0.005-0.3	0.04-0.5
11	Co	0.001-16	0.001-0.5	0.008-0.03	0.008-0.62	0.007-0.1			0.008-16
12	Ti	0.002-1.1	0.002-0.5	0.007-0.7	0.005-1.1	0.004-0.4	0.01-0.14		
13	Nb	0.002-2.0	0.002-0.53	0.002-0.7	0.02-2.0	0.08-0.42	0.1-0.7	0.003-0.38	
14	V	0.003-2.5	0.003-0.9	0.01-0.7	0.02-0.58	0.01-0.84	0.02-1.2		0.03-2.5
15	Ca	0.0001-0.001							
16	B	0.006-0.3	0.006-0.02	0.002-0.3	0.007-0.02				
17	Sn	0.001-0.3	0.001-0.09	0.003-0.3	0.003-0.05				
18	As	0.001-0.1	0.001-0.1	0.008-0.09	0.004-0.04				
19	Sb	0.0005-0.2	0.002-0.02	0.004-0.2					
20	Fe	Reference	Reference	Reference	Reference	Reference	Reference	Reference	Reference

The analysis ranges and elements of Aluminum (Al) base							
		Al-000	Al-001	Al-002	Al-003	Al-004	Al-005
No.	Elements	Global Program	Al Low Alloy	Al-Si Alloy	Al-Zn Alloy	Al-Cu Alloy	Al-Mg-Si Alloy
1	Si	0.01-24	0.01-1.63	0.02-24	0.02-9.4	0.02-7	0.02-2.3
2	Fe	0.01-4	0.01-1.65	0.02-4	0.03-1	0.05-1.9	0.07-0.80
3	Cu	0.002-13	0.002-1	0.005-6	0.01-4.3	0.01-13	0.07-1
4	Mn	0.001-2.4	0.001-1	0.005-1	0.02-1	0.05-1	0.03-2.4
5	Mg	0.002-10.2	0.002-1	0.01-1.5	0.01-4	0.01-2.7	0.006-10.2
6	Cr	0.001-0.5	0.001-0.15	0.005-0.5	0.01-0.4	0.01-0.14	0.01-0.4
7	Ni	0.001-2.5	0.001-0.16	0.02-2.5	0.01-0.2	0.01-2.3	0.005-0.25
8	Zn	0.002-12	0.002-0.5	0.005-3.5	0.01-12	0.05-3.5	0.01-1
9	Ti	0.001-0.4	0.001-0.15	0.005-0.4	0.005-0.3	0.001-0.2	0.007-0.3
10	Ca	0.002-0.03		0.002-0.03			
11	Cd	0.001-0.3	0.01-0.3	0.001-0.3	0.002-0.3	0.01-0.3	0.01-0.3
12	Ga	0.002-0.2	0.002-0.06	0.005-0.2			0.009-0.02
13	Pb	0.001-0.5	0.02-0.5	0.005-0.5	0.005-0.5	0.01-0.5	0.001-0.5
14	Sb	0.005-0.4		0.005-0.4			
15	Sn	0.005-0.5	0.01-0.2	0.003-0.5	0.005-0.2	0.02-0.3	0.007-0.2
16	V	0.002-0.2	0.004-0.05	0.005-0.2	0.005-0.03	0.01-0.03	0.002-0.03
17	Zr	0.001-0.3	0.001-0.12	0.005-0.2	0.01-0.3	0.001-0.2	0.003-0.12
18	p	0.002-0.005		0.002-0.005			
19	Al	Reference	Reference	Reference	Reference	Reference	Reference

The analysis ranges and elements of Copper (Cu) base									
		Cu-000	Cu-001	Cu-002	Cu-003	Cu-004	Cu-005	Cu-006	Cu-007
No.	Elements	Global Program	Brass	Copper	Al-Cu Alloy	Beryllium Bronze	Sn-Pb-Cu Alloy	Pure Copper	Si-Bronze
1	Zn	0.001-43.0	0.5-43.0	0.01-23.0	0.04-2.2	0.005-0.23	0.003-0.7	0.001-0.3	0.2-6.0
3	Sn	0.001-11.2	0.009-4.8	0.009-0.13	0.003-0.35	0.005-0.18	0.005-11.2	0.001-0.3	0.05-0.7
4	P	0.001-0.42	0.002-0.14	0.003-0.07			0.001-0.42	0.001-0.078	0.005-0.08
5	Mn	0.001-5.3	0.001-5.3	0.009-1.1	0.001-3.1		0.001-0.4	0.001-0.1	0.2-1.8
6	Fe	0.001-6.0	0.02-3.0	0.03-1.03	0.005-6.0	0.02-0.28	0.003-0.028	0.001-0.2	0.1-1.7
7	Ni	0.001-32.5	0.009-1.8	5.5-32.5	0.002-6.0	0.005-0.35	0.001-1.0	0.001-0.5	0.05-1.0
8	Si	0.001-5.0	0.001-4.6	0.009-0.46	0.004-0.3	0.02-0.3	0.002-0.009	0.001-0.055	1.5-5.0
9	Mg	0.001-0.7	0.001-0.01	0.003-0.14		0.003-0.7		0.001-0.01	
10	Cr	0.001-0.2	0.001-0.2					0.001-0.081	
11	As	0.001-0.3	0.001-0.2	0.003-0.05			0.004-0.2	0.005-0.3	
12	Sb	0.001-0.6	0.001-0.4	0.001-0.012			0.001-0.6	0.005-0.3 5	0.005-0.07
13	Ag	0.001-0.06					0.001-0.14	0.006-0.13	
14	Co	0.001-0.1	0.004-0.1				0.001-0.1		
15	Al	0.001-12.9	0.001-6.7		3.0-12.9	0.02-0.2	0.01-0.1		
16	S	0.001-0.15	0.001-0.15	0.004-0.06			0.001-0.14	0.001-0.05	
17	Cu	Reference	Reference	Reference	Reference	Reference	Reference	Reference	Reference

Note:

(1) The data in this form is based on the actual sample requirement of field and laboratory use.

(2) *C,P,S,As,B only available on UV Touch probe.

(3) In case the special material exceeds the detected elements and measurement range, either the manufacturer or the customer can create samples of known composition for internal control.

(4) Due to the hysteresis of national standard materials, the original standard elements shall be implemented before some grades of materials have new standard materials.