

## Covered Arc Welding Electrodes for Stainless Steel

Brand Name	Specification		Dia. mm	Application and Characteristics
	JIS	AWS		
S-347AP•R	—	—	2.6 3.2 4.0 5.0	Welding of pipe for 347AP
	Welding Position	[AWS/ASME] F/1G	HF/2F H/2G OH/4G VU/3G	
S-170	—	—	2.6 3.2 4.0 5.0	Welding of NSSC™170, YUS170 <sup>TM</sup>
	Welding Position	[AWS/ASME] F/1G	HF/2F H/2G OH/4G VU/3G	
S-2120•R	—	—	3.2 4.0	UNS S82122, S32101 Lean Duplex Stainless steel
	Welding Position	[AWS/ASME] F/1G	HF/2F H/2G VU/3G	
S-DP8	Z 3221 ES2209-16	☆A5.4 E2209-16	2.6 3.2 4.0	Welding of SUS329J3L, NSSC DX1, DP8 and UNS S31803 duplex stainless steel
	Welding Position	[AWS/ASME] F/1G	HF/2F H/2G OH/4G VU/3G	
S-DP3	Z 3221 ES329J4L-16	—	2.6 3.2 4.0	Welding of SUS329J4L, DP3 and UNS S31260 duplex stainless steel
	Welding Position	[AWS/ASME] F/1G	HF/2F H/2G OH/4G VU/3G	
S-DP3W	—	—	2.6 3.2 4.0	Welding of DP3W for super duplex stainless steel
	Welding Position	[AWS/ASME] F/1G	HF/2F	
S-410Nb	Z 3221 ES409Nb-16	☆A5.4 E419Nb-16	2.6 3.2 4.0 5.0	Welding of SUS403, 405 and 410
	Welding Position	[AWS/ASME] F/1G	HF/2F H/2G OH/4G VU/3G	
S-430Nb	Z 3221 ES430Nb-16	★A5.4 E430-16	2.6 3.2 4.0 5.0	Welding of SUS430
	Welding Position	[AWS/ASME] F/1G	HF/2F H/2G OH/4G VU/3G	

Note : Figure of illustration relating to the symbol of welding position in the table mentioned above.



Typical chemical compositions of weld metal (%)							Typical mechanical properties of weld metal	
C	Si	Mn	Ni	Cr	Mo	Other	TS, MPa	El, %
0.05	0.56	1.40	9.6	19.7	—	Nb: 0.34 N: 0.10	670	38
0.04	0.69	1.73	14.5	24.8	0.75	N: 0.28	760	36
0.03	0.31	0.78	9.1	25.5	0.67	N: 0.14	800	26
0.03	0.41	0.96	8.6	23.0	3.09	N: 0.18 PRE: 36 <sup>1)</sup>	830	28
0.04	0.42	0.80	8.8	25.4	3.14	Cu: 0.49 W: 0.28 N: 0.15 PREW: 39 <sup>2)</sup>	850	20
0.04	0.34	0.78	8.8	25.4	3.07	Cu: 0.46 W: 2.07 N: 0.25 PREW: 43 <sup>2)</sup>	960	23
0.06	0.38	0.40	—	13.2	—	Nb: 0.87	520 <sup>3)</sup>	28 <sup>3)</sup>
0.07	0.38	0.56	—	16.8	—	Nb: 0.85	530 <sup>3)</sup>	29 <sup>3)</sup>

Note : 1) PRE = Cr+3.3Mo+16N

2) PREW = Cr+3.3 (Mo+0.5W) +16N

3) PWHT conditions

S-410Nb PWHT: 850°C×2h; S-430Nb PWHT: 770°C×2h