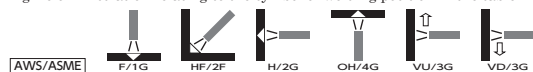


Covered Arc Welding Electrodes for Heat Resisting Steel

Brand Name	Identification Color		Specification		Dia. mm	Application and Characteristics
	End	Secondary	JIS	AWS		
N-2SM	Yellow	Blue	—	☆A5.5 E9016-B3	3.2 4.0 5.0	Extra low hydrogen type electrode with a 2.25%Cr-1%Mo core wire. Weld metal rarely embrittles during service.
	Welding Position		AWS/ASME	F/1G	HF/2F	H/2G OH/4G VU/3G
N-3	Green	Black	—	☆A5.5 E9016-G	2.6 3.2 4.0 5.0 6.0	Extra low hydrogen type 1.7%Mn-0.7%Ni-0.4%Mo low alloy steel electrode. It is suitable for welding ASTM A533-B steel which is used for pressure vessels for nuclear reactor container.
	Welding Position		AWS/ASME	F/1G	HF/2F	H/2G OH/4G VU/3G
N-P31	Light green	—	—	☆A5.5 E9016-G	3.2 4.0 5.0 6.0	Low hydrogen type electrode suitable for ASTM A533 Type B, C class 1 steel.
	Welding Position		AWS/ASME	F/1G	HF/2F	H/2G OH/4G VU/3G
N-P32	Light blue	—	—	☆A5.5 E9016-G	3.2 4.0 5.0 6.0	Low hydrogen type electrode suitable for ASTM A533 Type B, C class 2 steel.
	Welding Position		AWS/ASME	F/1G	HF/2F	H/2G OH/4G VU/3G

Note : SC means Socal step cooling.

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



Typical Chemical Composition of Weld Metal (%)										Test temperature °C	Typical Mechanical Properties of Weld Metal				
C	Si	Mn	P	S	Ni	Cr	Mo	V			Yield Strength, MPa	Tensile Strength, MPa	Elongation, %	Charpy Impact, J	PWHT
0.11	0.33	0.66	0.007	0.004	—	2.24	1.00	—		RT	590	680	26	-29°C 160	690°C×6hr
										454	460	530	21	-29°C 70	690°C×6hr +SC
										RT	550	650	27	-29°C 160	690°C×19.8hr
										454	420	500	20	-29°C 80	690°C×19.8hr +SC
0.05	0.24	1.72	0.005	0.004	0.82	—	0.35	—		R.T.	590	680	30	-12°C 170	625°C×1hr
											520	600	30	-12°C 180	625°C×45hr
0.08	0.35	1.29	0.012	0.006	0.40	—	0.46	—		R.T.	580	640	24	0°C 140	620°C×2hr
										R.T.	540	610	27	0°C 150	620°C×40hr
0.08	0.29	1.45	0.011	0.006	0.74	—	0.46	—		R.T.	620	690	23	0°C 130	610°C×2hr
										R.T.	600	660	26	0°C 140	610°C×40hr

Note : SC means Socal step cooling.