

## Covered Arc Welding Electrodes for Surfacing

Brand Name	Identification Color		Specifica- tion	Dia. mm	Application and Characteristics			
	End	Sec- ondary	JIS					
H-250B	Light blue	Red	☆Z 3251 DF2A- 250-R	4.0 5.0 6.0	It is a high titanium oxide type electrode being used widely for surfacing of shafts, gears and crane wheels. Weldability is excellent and bead appearance is beautiful. Weld metal has the hardness of about 250 Vickers and is easily machined.			
	Welding Position		AWS/ASME	F/1G	HF/2F	H/2G	VU/3G	
H-250C	Light blue	black	☆Z 3251 DF2A- 250-B	3.2 4.0 5.0 6.0	Surfacing of shafts, rollers, couplings and crane wheels. H-250C is a low hydrogen type electrode with excellent weldability. It is suitable for surfacing worn machine parts since weld metal has the hardness of about 250 Vickers as welded and is easily machined. It also is suitable for depositing buffer layer in multi-layer welding due to its high crack resistance.			
	Welding Position		AWS/ASME	F/1G	HF/2F	H/2G	VU/3G	
H-300C	Light blue	Orange	☆Z 3251 DF2A- 300-B	4.0 5.0 6.0	Surfacing of shafts, rollers, spindles, gears and crane wheels H-300C is a low hydrogen type electrode for surfacing machine parts, and carbon steel and cast steel of poor weldability. Weld metal has the hardness of about 300 Vickers as welded and is easily machined. Weldability is excellent.			
	Welding Position		AWS/ASME	F/1G	HF/2F	H/2G	VU/3G	
H-350C	Light blue	White	☆Z 3251 DF2A- 350-B	4.0 5.0 6.0 7.0	Surfacing of shafts, rollers, and bulldozer idlers and sprockets. H-350C is a low hydrogen type electrode for surfacing worn machine parts subjected to high stress abrasion by metal to metal sliding or rolling. Weld metal of about 350 Vickers hardness as welded provides reasonable abrasion resistance and is machinable in general.			
	Welding Position		AWS/ASME	F/1G	HF/2F	H/2G	VU/3G	
H-500	Reddish	Blue	☆Z 3251 DF2B- 500-B	3.2 4.0 5.0 6.0	Surfacing of track links, bulldozer idlers and bucket lips. H-500 is a low hydrogen type electrode for surfacing machine parts which are subjected to metal to metal abrasion or earth and sand abrasion and are used without machining. Weld metal of about 500 Vickers hardness and martensitic structure provides reasonable toughness and stress resistance to some extent.			
	Welding Position		AWS/ASME	F/1G	HF/2F	VU/3G		

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



Typical Chemical Composition of Weld Metal (%)							Typical Hardness of Weld Metal (HV)		
C	Si	Mn	Cr	Mo	V	Others	As Welded	After work-hardened	PWHT
0.12	0.43	0.52	0.81	—	—	—	240	—	—
0.13	0.27	0.94	0.65	—	—	—	250	—	500°C 230
0.18	0.83	1.55	0.60	—	—	—	310	—	500°C 285
0.16	0.43	1.32	1.55	—	—	—	355	—	500°C 335
0.34	0.76	1.13	3.06	0.44	—	—	535	—	500°C 495