

Covered Arc Welding Electrodes for Surfacing

Brand Name	Identification Color		Specifica- tion	Dia. mm	Application and Characteristics
	End	Secon- dary	JIS		
H-600	Reddish brown	Pink	☆Z 3251 DF2B- 600-B	4.0 5.0 6.0	Surfacing of track rollers, crusher teeth, mill hammers and bucket lips. H-600 is a low hydrogen type electrode for surfacing worn parts of civil engineering, construction and mining machinery to be used without machining. Weld metal of about 600 Vickers hardness and martensitic structure provides high toughness in spite of high hardness and excellent abrasion resistance to midium impact.
					Welding Position: AWS/ASME F/1G HF/2F VU/3G
H-700	Black	—	☆Z 3251 DF2B- 700-B	4.0 5.0 6.0 7.0	Surfacing of mixers, screw conveyers and casings. H-700 is a low hydrogen type electrode for surfacing machine parts which are subjected to heavy impact. Weld metal of about 700 Vickers hardness and martensitic structure provides extremely high abrasion resistance.
					Welding Position: AWS/ASME F/1G HF/2F VU/3G
H-750	Reddish brown	Yellow	☆Z 3251 DF3C- 700-B	4.0 5.0 6.0	It is a low hydrogen type electrode for surfacing civil engineering and construction machine parts which are not subjected to heavy impact. Weld metal of about 750 Vickers hardness and martensitic structure provides stably high hardness and abrasion resistance. Weldability is excellent.
					Welding Position: AWS/ASME F/1G HF/2F VU/3G
H-800	Reddish brown	Purple	☆Z 3251 DF3C- 700-B	4.0 5.0 6.0	Surfacing of dredger pump mouths, impellers, liners and cutter knives. H-800 is a low hydrogen type electrode to give extremely hard weld metal due to dispersedly precipitated borides and carbides. Although it is not suitable for impact abrasion since weld metal tends to crack, it shows excellent resistance to earth and sand abrasion.
					Welding Position: AWS/ASME F/1G HF/2F
H-13Cr	Reddish brown	Black	☆Z 3251 DF4B- 350-B	4.0 5.0	Surfacing of hammer mills, roll crushers, hot trimming dies, roll dies and forging benches subjected to high temperature abrasion. Weld metal has chmeical composition similar to tool steel SKD11 and the hardness of about 350 Vickers as welded and 500-600 Vickers after work hardened. It also is suitable for parts subjected to medium impact abrasion at high temperatures since weld metal is resistant to comparatively high heat.
					Welding Position: AWS/ASME F/1G HF/2F

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
0.45	0.50	1.15	3.95	0.60	—	—	625	—	500°C 605
0.64	0.90	1.23	2.58	—	0.72	—	710	—	—
0.69	0.99	0.35	5.83	—	1.71	—	765	—	—
0.82	1.28	1.10	8.26	0.52	—	B: 0.45	815	—	—
1.21	0.34	0.30	13.3	0.50	—	—	360	520	—