CHE56

Covered Welding Rod for High Tensile Steels

AWS A5.1 E7016
BS EN ISO 2560-B-E4916-1 A
CSA W48-06 E4916
JIS Z3212 D5016
GB/T 5117 E5016

Type of Covering: Low hydrogen, potassium
Welding Position: F, H, HF, OH, V
Type of Current: DCEP or AC

Features & Applications
It is used for main parts of ships, e.g. boilers, pressure vessels and pipes made by equivalent tensile strength steels, such as A, B, D, E, AH36, DH36 or EH36. Also it can be applied to homothetic strength structures of bridges, machineries, constructions, vehicles and so on. The weld metal has good performance of plasticity, impact toughness and crack resistance.

Chemical Composition of Deposited Metal (%)

	C	Mn*	Si	S	P	Cr*	Ni*	Mo*	V*
Standard	≤0.15	≤1.60	≤0.75	≤0.035	≤0.035	≤0.20	≤0.30	≤0.30	≤0.08
Typical	0.070	1.12	0.54	0.007	0.018	0.027	0.006	0.003	0.016

The total amount of elements with * one should be≤1.75%

Mechanical Properties of Deposited Metal (AW)

	Yield Strength ReH (MPa)	Tensile Strength Rm (MPa)	Elongation A4 (%)	Impact Value (J)	
				-20℃	-30℃
Standard	≥375	490-660	≥22	≥47	≥27
Typical	450	550	30	185	170

The standard of mechanical properties conforms to shipping institutions and the certificate of inspection would follow it unless the purchaser has special requirement.
Diffusible hydrogen in deposited metal: ≤8ml/100g (mercury process)
X-ray radiographic inspection: Grade Ⅰ

Sizes & Recommended Current (DC+ or AC open circuit voltage ≥70V)

Size (mm)		2.5x300	3.2x350	4.0x400	5.0x400
Current (A)	F, H	70-110	100-140	140-180	180-230
	V, OH	50-80	80-110	130-170	—

Chemical Composition of Deposited Metal (%)

Institute	CCS	LR	ABS	BV	GL	DNV	NK	BKI
Grade	3YH10	3Ym, H15	3Y	3YHH	3YH10	3YH10	KMW53H10	3YH10

Notice: 1) The rod should be baked at 350℃ for 1 hour before use.
2) The surfaces to be welded must be cleaned away impurities of oil contamination, rust, moisture and so on.
3) Short arc and narrow-gap welding is recommended.