AK ER80YM

GB/T 8110 ER76-G

AWS A5.28 ER110S-G

Characteristics and Applications: AK-ER80YM is an 800MPA grade gas shielded welding wire for low alloy and high strength steel. It adopts multi-element alloy strengthening method, strictly controls the content of impurities such as s and p in the welding wire, and obtains high strength, high toughness and high purity weld metal. Excellent all-position welding technology, beautiful weld molding. The deposited metal has excellent low temperature initial plasticity and crack resistance. It is mainly used for welding WSD690E high strength and high toughness penstock in pumped storage power station, and for welding volute, seat ring and other thick plates in 800MPa high strength hydraulic power plant.

NOTE:

1. protective gas Ar + 20% CO2, the mixed gas, gas flow 15-20 L/min. Control arc length during welding to avoid welding defects such as blowhole.
2. When welding, it is advisable to control the length of dry extension of welding wire at 10-18mm. When the current is more than 250A, the dry elongation should be controlled in the range of 20-25mm
3. and the impurities such as rust, oil and water should be thoroughly removed from the welding place.
4. thin plate welding torch can be inclined to the side of the weld to reduce penetration to avoid penetration of the base metal.
5. When the wind speed is 1.5 m/s in outdoor construction, measures should be taken to prevent air hole and other defects.

Chemical composition of welding wire (mass fraction) :

	C	Si	Mn	S	P	Ni	Cu	Mo	Cr
Actual Result	0.075	0.56	1.70	0.005	0.006	2.1	0.32	0.40	0.21

Mechanical properties of deposited metal:

	Tensile strength (MPa)	Yield strength (MPa)	Elongation (%)	Impact function(J)	Protective gas
Requirement	≥760	≥680	≥ 15	≥47J/-40℃	——
Actual Result	827	777	21	93	Ar+20% CO_2

Recommended parameters: (Polarity: DC)

Diameter/mm		1.0	1.2	1.6	——
Current (A)	F/H	100-240	120-280	150-350	——
	V/OH	70-160	80-180	——	——