



UP ENi5

Classification

AWS A5.23 : ENi5
AWS A5.23 : ENi6

ISO 14171-A : S3Ni1Mo0.2
ISO 26304-A : S Z 3Ni1Mo0.2

Description & Applications

Solid wire low alloyed with Nickel (1.0%) for submerged arc welding of High strength quenched and tempered structural steels. Excellent impact strength at low temperatures down to -80°C in combination with flux UP BF10BW.

Main applications: Off shore, shipbuilding and structural fabrication.

Base materials:

High strength quenched and tempered structural steels :

EN	API
S450J2	5L Grade X60
S460N	5L Grade X70
P460QL1-P500QL1	
P460QL2-P500QL2	
S460QL1-S500QL1	
S460QLN-S500QLN	

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Cu	Al	P	S	A/T
Min	0.07	0.05	0.80		3.10						
Max	0.13	0.25	1.20	0.15	3.70	0.15	0.30	0.030	0.020	0.020	0.50
Type	0.10	0.15	1.0	0.02	3.5	0.01	0.10	0.01	0.015	0.010	<0.50

Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters				Flux
		Current (A)	Voltage (V)	Stick out (mm)	Speed (cm/min)	
SAW AC / +=	2.4	350 - 450	27 - 30	18	40 - 60	UP BF10
	3.2	430 - 530	28 - 32	20	40 - 60	
	4.0	480 - 580	30 - 34	22	50 - 60	