

S3 NiMoCr

CATEGORY SAW Arc Submerged

TYPE Submerged arc welding wire for high strength fine grain steels with >690N/mm² yield strength.

APPLICATIONS Applications will be found in the offshore industry, shipbuilding, pressure vessels, earthmoving equipment, cranes and general structural fabrication.

PROPERTIES Welding procedure (including preheat temperature, interpass temperature and PWHT) will be dependent on the base material being welded, including its thickness, and any applicable design codes. Remarkable crack resistant weld metal in combination with very low hydrogen content. Therefore, suitable for the economic processing of high-strength and low temperature fine grained structural steels. Excellent welding properties in combination with **FL 155** high basic flux even in narrow gabs. To obtain optimum mechanical properties the heat input should be kept below 15 kJ/cm and interpass temperature between 100 and 150°C.

CLASSIFICATION AWS A 5.23: ~EG EF6
EN ISO 26304-A: SZ3Ni2,5CrMo

SUITABLE FOR S690, X80, X90, X100, S690QL1, Weldox 700, Dilimax, Naxtra 70, 10CrMo9-10, 16NiCrMo12-6, high strength steels with yield >690N/mm², S500Q-S690Q, S500QL-S690QL, P500Q-P690Q, P500QL1-ASTM: A514, A517. HY80, HY100, Q1(N), Oceanfit 100, Oceanfit 690

APPROVALS CE approved

WELDING POSITIONS:



ALL-WELD METAL ANALYSES % (TYPICAL)

C	Mn	Si	Cr	Ni	Mo
0.13	1.60	0.10	0.27	2.10	0.6

REINES SCHWEISSGUT ERGEBNISSE

Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V			Hardness HRC / HV
				-20°C	-40°C	-60°C	
as welded	>690	>770	>17	>69	>69		

WELDING PARAMETERS / PACKING

D (mm)	Welding Parameters			Packing	
	Voltage (V)	Current (A)	spool type	kg / spool / drum	kg / pallet
2.0	28-34	180-320	K-415 / Drum	25 / 300	
2.4	28-38	250-500	K-415 / Drum	25 / 300	
3.2	28-40	400-800	K-415 / Drum	25 / 300	
4.0	28-40	500-900	K-415 / Drum	25 / 300	

REDRYING TEMPERATURE not required