Union NiMoCr

Solid wire, medium-alloyed, high strength

Classifications

EN ISO 16834-A	AWS A5.28 / SFA-5.28
G 69 6 M21 Mn4Ni1,5CrMo	ER100S-G

Characteristics and typical fields of application

Medium-alloyed coppered solid wire for joining of quenched and tempered, thermomechanically rolled fine-grained structural steels with yield strength of 690 MPa. Suitable for welding armor steel and wear resistant steels. For use with CO_2 and gas mixture. Outstanding toughnesss of the weld metal at low temperatures. For use in crane and vehicle manufacturing.

Base materials

S620Q, S620QL, S620QL1, S690Q, S690QL, S690QL1;
S600MC, S650MC, S700MC;
L690M, L830M;
ASTM A 514 Gr. F, H, Q; A 709 Gr. 100 Type B, E, F, H, Q; A 709 Gr. HPS 100W;
API 5L X90, X100, X120

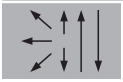
Typical analysis

	C	Si	Mn	Cr	Ni	Mo
wt.-%	0.08	0.60	1.70	0.20	1.50	0.50

Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact energy ISO-V KV J			Shielding gas
	MPa	MPa	%	20°C	-40°C	-60°C	
u1	680	740	18	80	47		CO^2
u2	720	780	16	100		47	M21
u1 untreated, as welded, shielding gas CO2 u2 untreated, as welded, shielding gas M21							

Operating data



Polarity	DC+
Shielding gas (EN ISO 14175)	M2 M3 C

Dimension mm
0.8
0.9
1.0
1.2
1.4
1.6

Approvals

TÜV (02760), DB (42.132.08), ABS, BV, DNV, LR, VG 95132-1, CE