Union X 69

Solid Wire, low-alloyed, high strength

Classifications

EN ISO 16834-A	AWS A5.28 / SFA-5.28
G 69 4 M Mn3Ni1CrMo	ER100S-G

Characteristics and typical fields of application

GMAW low-alloyed solid wire for joining of quenched and tempered and thermomechanically rolled fine-grained structural steels with yield strength of 690 MPa. For use in construction, crane and vehicle manufacturing.

Base materials

S620Q, S620QL, S690Q, S690QL;
S600MC, S650MC, S700MC;
ASTM A 514 Gr. F, H, Q; A 709 Gr. 100 Type E, F, H, Q; A 709 Gr. HPS 100W

Typical analysis

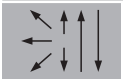
	C	Si	Mn	Cr	Ni	Mo
wt.-%	0.09	0.55	1.50	0.35	1.40	0.25

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	
	MPa	MPa	%	20°C	-40°C
u	730 (≥690)	850 (770 – 940)	19 (≥17)	90 (> 47)	70 (> 47)

u untreated, as welded

Operating data



Polarity	DC+
Shielding gas (EN ISO 14175)	M20 M21

Dimension mm
1.0
1.2

Approvals

TÜV (18928), DB (42.132.59), CE