Union X 85

Solid Wire, low-alloyed, high strength

Classifications

EN ISO 16834-A	AWS A5.28 / SFA-5.28
G 79 5 M21 Mn4Ni1,5CrMo	ER110S-G

Characteristics and typical fields of application

GMAW low-alloyed solid wire electrode for joininng of quenched and tempered and thermomechanically rolled fine-grained structural steels / high-strength tubes. Outstandingly tough weld metal at low temperatures when deposited with gas mixture.
Good deformability; outstanding mechanical properties even with higher heat input per unit length of weld. For use in crane, building and vehicle constructions.

Base materials

S690Q, S690QL, S770QL;
S700MC, S760MC;
P690Q, P690QL1;
ASTM A 514 Gr. F, H, Q; A 709 Gr. 100 Type E, F, H, Q; A 709 Gr. HPS 100W

Typical analysis

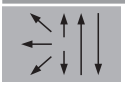
	C	Si	Mn	Cr	Ni	Mo
wt.-%	0.09	0.7	1.70	0.30	1.85	0.60

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	-50°C	
u1	720	770	17	80		CO^2
u2	790	880	16	90	47	M21

u1 untreated, as welded, shielding gas C1
u2 untreated, as welded, shielding gas M21

Operating data



Polarity	DC+	Dimension mm
Shielding gas (EN ISO 14175)	M2 M3 C1	1.0 1.2

Approvals

DB (42.132.21), CE