TECHNICAL DATA SHEET

parweld
WELDING THE FUTURE

XP ER 70S-6 (A18)

MILD STEEL

CLASSIFICATIONS

EN ISO 636-A	AWS A5.18
W 42 4 3Si1	ER70S-6

KEY FEATURES AND APPLICATIONS

- Double-deoxidized wire for welding mild and low alloy steels require a minimum 420 MPa yield strength.
- High silicon content promotes weld pool fluidity, offering a smoother bead appearance and minimal post-weld grinding.
- Particularly well-suited for root and final capping passes when joining pipes.
- Excellent mechanical properties at subfreezing temperatures down to -40°C.
- Widespread usage across a diverse range of industries and applications, such as boiler manufacturing, heavy industrial machinery, shipbuilding, chemical plants, petroleum refineries, water supply lines, natural gas pipeline, automotive manufacturing, railroad equipment, structural steel fabrication and various engineering projects.

BASE MATERIALS

S235JR-S355JR, S235J0-S355J0, S235J2-S355J2, S275N-S420N, S275M-S420M, P235GH-P355GH, P275NL1-P355NL1, P215NL, P265NL, P355N, P285NH-P420NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L415NB, L245MB-L415MB, GE200-GE240, ship building steels: A, B, D, E, A 32-E 36

ASTM A 106 Gr. A, B, C; A 181 Gr. 60, 70; A 283 Gr. A, C; A 285 Gr. A, B, C; A 350 Gr. LF1; A 414 Gr. A, B, C, D, E, F, G; A 501 Gr. B; A 513 Gr. 1018; A 516 Gr. 55, 60, 65, 70; A 573 Gr. 58, 65, 70; A 588 Gr. A, B; A 633 Gr. C; A 662 Gr. B; A 711 Gr. 1013; A 841 Gr. A; API 5 L Gr. B, X42, X52, X56, X60

CHEMICAL COMPOSITION OF WIRE %

	C	Si	Mn	P	S	Ni	Cr	Mo	V	Al	Ti + Zr
MIN	0.06	0.70	1.30	-	-	-	-	-	-	-	-
MAX	0.14	1.00	1.60	0.025	0.025	0.15	0.15	0.15	0.03	0.02	0.15

Single values are maximum values according to EN ISO 636

MECHANICAL PROPERTIES OF ALL-WELD METAL - TYPICAL (MIN.) VALUES

Yield Strength (MPa)	Tensile Strength (MPa)	Elongation (%)	Impact ISO-V (J)	Test Temperature
450 (≥420)	550 (500 - 640)	24 (≥20)	80 (≥47)	-40°C

Test data for mechanical properties are not guaranteed since actual as welded conditions depend on numerous variables

OPERATING DATA

Shielding Gases	Polarity
EN ISO 14175 - I1	DC-

PACKAGING AND AVAILABLE SIZES

Part Number	Diameter (mm)	Length (mm)	Weight (kg)	Packaging
XP10324	1.0	1000	5	PAP 20 Tube
XP10327	1.2	1000	5	PAP 20 Tube
XP10330	1.6	1000	5	PAP 20 Tube
XP10333	2.0	1000	5	PAP 20 Tube
XP10336	2.4	1000	5	PAP 20 Tube
XP10339	3.2	1000	5	PAP 20 Tube

MADE IN EU