TECHNICAL DATA SHEET

parweld
WELDING THE FUTURE

XP 81-RC (Seamless)

LOW TEMPERATURE

CLASSIFICATIONS

EN ISO 17632-A	AWS A5.29
T 50 6 1Ni P M21 1 H5	E81T1-Ni1M-J H4

KEY FEATURES AND APPLICATIONS

- 1% Nickel seamless rutile flux cored wire, ideal for high-strength and low-temperature applications requiring a minimum yield strength of 500 MPa.
- Exceptional welding characteristics with minimal spatter.
- Typical diffusible hydrogen content is <3.0 ml 100 g. Guaranteed for the total processing time <4.0 ml 100 g.
- Excellent mechanical properties at subfreezing temperatures down to -60°C.
- Widespread usage across diverse industries, including structural steel fabrication, pipeline construction, naval architecture, pressure vessel manufacturing, offshore installations, mechanical engineering, heavy-duty transportation, and general metalworking.

BASE MATERIALS

S355JR, S355J0, S355J2, S450J0, S355N-S460N, S355NL-S460NL, S355M-S460M, S355ML-S460ML, S460Q, S460QL, P355GH, P355NH, P420NH, P460NH, P355N-P460N, P355NH-P460NH, L245NB-L415NB, L245MB-L485MB, L360QB-L485QB

ASTM A 350 Gr. LF1; A 516 Gr. 65, 70; A 572 Gr. 42, 50, 60, 65; A 573 Gr. 65, 70; A 588 Gr. B, C, K; A 633 Gr. A, C, D, E; A 662 Gr. B, C; A678 Gr. B; A 707 Gr. L2; A 841 Gr. A, B, C; API 5 L X42, X52, X60, X65, X70, X52Q, X60Q, X65Q, X70Q

CHEMICAL COMPOSITION OF WIRE %

	C	Mn	Si	P	S	Cr	Ni	Mo	V	Nb	Cu
MIN	-	-	-	-	-	-	0.6	-	-	-	-
MAX	-	1.4	0.80	-	-	0.2	1.2	0.2	0.08	0.05	0.3

Single values are maximum values according to EN ISO 17632

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

Yield Strength (MPa)	Tensile Strength (MPa)	Elongation (%)	Impact ISO-V (J)	Test Temperature
560 (≥500)	610 (560 - 720)	25 (≥18)	90 (≥47)	-60°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 - M21	DC+

WELDING PARAMETERS

Diameter (mm)	Current (A)	Voltage (V)
1.2mm	180 - 300	22 - 32

PACKAGING AND AVAILABLE SIZES

Part Number	Diameter (mm)	Spool	Weight (kg)	Pallet Qty
XP15418	1.2	BS300	16	64