TECHNICAL DATA SHEET

parweld
WELDING THE FUTURE

XP ER 312

STAINLESS STEEL

CLASSIFICATIONS

EN ISO 14343-A	AWS A5.9
G 29 9	ER312

KEY FEATURES AND APPLICATIONS

- Solid corrosion resisting chromium-nickel welding wire for welding of materials of the 29% Cr, 9% Ni types.
- ER312 is suitable for buffer layers before hardfacing, as well as for armour plate, exhaust systems, high-manganese austenitic steel, and heterogeneous or unknown/difficult-to-weld steels.
- Offers excellent corrosion oxidation resistance at high temperature due to its high content of Cr.
- To avoid the formation of brittle secondary phases, service temperatures shouldn't exceed 420°C.
- Typical applications include industrial furnaces, annealing chambers, fused salt treatment installations, boiler parts, and heat exchangers.

BASE MATERIALS

X120Mn12, X10Cr13, GX32CrNi28-10, GX49CrNi27-4, GX8CrCrNiN26-7, X3CrNiMoN27-5-2, X 10 CrAl 24, G-X 70 Cr 29

UNS S41000 - AISI 329, 410. S235, E295

Hss, C45, C60, dissimilar welding S335 - X120Mn12, maintenance, buffer layers, repairing cock wheels, 42MnV7, 25CrMo4, 42CrMo4, 50CrMo4, 1.5223, 1.7218, 1.7225, 1.7228, Armox, Hardox

CHEMICAL COMPOSITION OF WIRE %

	C	Si	Mn	P	S	Cr	Ni	Mo	Cu
MIN	-	-	1.0	-	-	28.0	8.0	-	-
MAX	0.15	1.0	2.5	0.03	0.03	32.0	12.0	0.5	0.5

Single values are maximum values according to EN ISO 14343

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

Yield Strength (MPa)	Tensile Strength (MPa)	Elongation (%)
500 (≥450)	705 (≥650)	28 (≥15)

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 - M12, M13	DC+

PACKAGING AND AVAILABLE SIZES

Part Number	Diameter (mm)	Spool	Weight (kg)	Pallet Qty
XP30244	0.8	BS300	15	72
XP30246	1.0	BS300	15	72
XP30248	1.2	BS300	15	72

REV.01
TDS-0257 EN