

UTP AF 68 MoLC PW

stainless steels

Classifications Gas-shielded flux-cored wire

EN ISO 17633-A	AWS A5.22
T 19 12 3 L P M21 1 / T 19 12 3 L P C1 1	E316LT1-4 / E316LT1-1

Characteristics and field of use

UTP AF 68 MoLC PW is a flux-cored wire with a rutile slag characteristic for position welding of austenitic CrNiMo steels. The support provided by the fast-hardening slag allows out-of-position welding with high current magnitudes and high welding speeds. The fine droplet, low-splatter, very powerfully welding spray arc, the reliable fusion penetration, the self-releasing slag and the effectively wetting seam formation result in a high weld quality at the same time as short welding times. Additional advantages to its application result from the ease of handling, the low heat input due to the high welding speed, and the small amounts of cleaning and pickling required. UTP AF 68 MoLC PW is preferred for flat and horizontal welding positions (PA, PB). The weld metal is cryogenic down to -120 °C and resists intergranular corrosion up to +400 °C.

Base materials

1.4306 X2CrNi19-11, EN 1.4301 X5CrNi18-10, EN 1.4311 X2CrNiN18-10, EN 1.4312 GX10CrNi18-8, EN 1.4541 X6CrNiTi18-10, EN 1.4546 X5CrNiNb18-10, EN 1.4550 X6CrNiNb18-10, AISI 304, 304L, 304LN, 302, 321, 347, ASTM A157 Gr. C9, A320 Gr. B8C or D

Typical analysis in %

C	Si	Mn	Cr	Ni	Mo
0.03	0.7	1.5	19.0	12.0	2.7

Mechanical properties of the weld metal


Welded condition	Yield strength	Tensile strength	Elongation	Impact toughness	
	$R_{p0.2}$	R_m	A	K_V	
	MPa	MPa	%	J [RT]	-120 °C
untreated	400	560	38	65	45

shielding gas Ar + 18 % CO₂

Welding instructions

Welding with conventional MAG devices, slightly trailing torch position (angle of incidence about 80 °), slight weaving of the torch is recommended in all positions. With 100 % CO₂ the voltage must be raised by 2V. The gas quantity should be 15 – 18 l / min.

Welding positions



Current type DC (+)
Shielding gases: Argon + 15 - 25 % CO₂, 100 % CO₂

Approvals

TÜV (09118.), DB (43.014.24), CWB (E316LT1-1(4)), LR (DXV and O, BF 316LS), CE, DNV GL

Form of delivery and recommended welding parameters

Wire diameter [mm]	Amperage [A]	Voltage [V]
1.2	100-220	20-31
1.6	175-260	21-29