BÖHLER Q T 316L

TIG rod, high-alloyed, austenitic stainless

Classifications

EN ISO 14343-A	AWS A5.9 / SFA-5.9
W 19 12 3 L	ER316L

Characteristics and typical fields of application

TIG rod W 19 12 3 L / ER316L for joining and surfacing application with matching and similar unstabilized austenitic steels and cast steel grades. Good corrosion resistance. High metal toughness down to –196ºC. Max. service temperature 400ºC.

Base materials

1.4401 X5CrNiMo17-12-2, 1.4404 X2CrNiMo17-12-2, 1.4409 GX2CrNiMo19-11-2, 1.4429 X2CrNiMoN17-12-3,
1.4432 X2CrNiMo17-12-3, 1.4435 X2CrNiMo18-14-3, 1.4436 X3CrNiMo17-12-3, 1.4571 X6CrNiMoTi17-12-2, 1.4580 X6CrNiMoNb17-12-2,
1.4583 X10CrNiMoNb18-12
UNS S31600, S31603, S31635, S31640, S31653
AISI 316L, 316Ti, 316Cb

Typical analysis

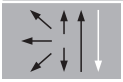
	C	Si	Mn	Cr	Ni	Mo
wt.-%	≤ 0.02	0.5	1.8	18.5	12.3	2.8

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	
	MPa	MPa	%	20°C	–196°C
u	470 (≥ 320)	610 (≥ 510)	38 (≥ 25)	140 (≥ 75)	58 (≥ 32)

u untreated, as-welded – shielding gas Ar

Operating data



Polarity	DC-	**Dimension mm**
Shielding gas (EN ISO 14175)	I1 (Ar)	1.0 x 1000 1.2 x 1000
Rod marking	W 19 12 3 L ER 316 L	1.6 x 1000 2.0 x 1000
		2.4 x 1000
		3.2 x 1000

Approvals

TÜV (19797), DB (43.132.95), CE