

Classifications

EN ISO 14343-A

AWS A5.9

W Z18 16 5 N L

ER317L (mod.)

Characteristics and typical fields of application

GTAW rod for 3 – 4 % molybdenum alloyed CrNi-steels like 1.4438 / 317L.

The weld metal shows a stable austenitic microstructure with good pitting resistance ($PRE_N > 35$) and crevice corrosion resistance as well as excellent CVN toughness behaviour down to -269 °C . Resistant to intergranular corrosion up to $+400\text{ °C}$.

BÖHLER ASN 5-IG has an increased Mo content (4.1 %) to compensate for segregation when welding high molybdenum alloyed steels, thus producing equivalent corrosion resistance to the relevant base metals offering a 3 – 4 % Mo guarantee.

Base materials

1.4436 X3CrNiMo17-13-3, 1.4439 X2CrNiMoN17-13-5, 1.4429 X2CrNiMoN17-13-3,
1.4438 X2CrNiMo18-15-4, 1.4583 X10CrNiMoNb18-12

AISI 316Cb, 316LN, 317LN, 317L, UNS S31726

Typical analysis of the TIG rods (wt.-%)

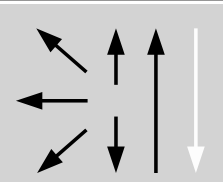
	C	Si	Mn	Cr	Ni	Mo	N		PRE_N	FN
wt.-%	≤ 0.02	0.4	5.5	19.0	17.2	4.3	0.16		38.0	≤ 0.5

Mechanical properties of all-weld metal

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Impact work ISO-V KV J	
	MPa	MPa	%	+20 °C	-296 °C
u	440 (≥ 400)	650 (≥ 600)	35 (≥ 30)	120	75 (≥ 32)

u untreated, as welded – shielding gas Argon

Operating data

	Polarity DC (-)	Shielding gas: 100 % Argon	Rod marking:	ø (mm)
			front: † W Z 18 16 5 NL back: 1.4453	

Approvals

TÜV (00017.), SEPROZ, CE