

EN ISO 14343-A:2007: G Z18 16 5 N L
 AWS A5.9-06: ER317L (mod.)
 W.No.: 1.4453 (mod.)

BÖHLER ASN 5-IG (Si)

GMAW solid wire
high-alloyed, highly corrosion resistant

Description

GMAW solid wire for 3-4 % Mo 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 -196°C .

BÖHLER ASN 5-IG (Si) has an increased Mo content (4.3 %) 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. Resistance to intergranular corrosion up to $+400^\circ\text{C}$.



Typical Composition of Solid Wire

	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	37,1	≤0.5

Mechanical Properties of All-weld Metal

yield strength R_e N/mm ² (MPa):	430	(≥ 400)
tensile strength R_m N/mm ² (MPa):	650	(≥ 600)
elongation A ($L_0=5d_0$) %:	35	(≥ 30)
impact work ISO-V KV J	+20 °C:	110 (≥ 70)
	-196 °C:	(≥ 32)
<i>u untreated, as-welded – shielding gas Ar + 20% He + 0.5% CO₂</i>		

Operating Data

	shielding gases:	\varnothing mm	
	Argon + 20-30% He + max. 2% CO₂	1.0	
	Argon + 20% He + 0.5% CO₂	1.2	

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, 316 LN, 317LN, 317L, UNS S31726

Approvals and Certificates

TÜV-D (04139.), DNV (X), GL (4439S), CE

Same Alloy / Similar Alloy Filler Metals

SMAW electrode:	FOX ASN 5 FOX ASN 5-A	GMAW flux cored wire:	E317L-FD* E317L PW-FD*
GTAW rod:	ASN 5-IG	SAW combination:	ASN 5-UP/BB 203

* for similar alloyed base metals only, not fully austenitic