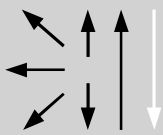


Classifications						
EN ISO 14343-A		EN ISO 14343-B			AWS A5.9	
W 19 12 3 L		SS316L			ER316L	
Characteristics and typical fields of application						
TIG rod of W 19 12 3 L / ER316L type for joining and surfacing application with matching and similar unstabilized austenitic CrNi(N) and CrNiMo(N)-steels and cast steel grades. Corrosion resistance similar to matching low-carbon and stabilized austenitic 17Cr-12Ni-2Mo-steels and cast steel grades. Resistant to intergranular corrosion. Excellent weld metal toughness down to –196°C. Max. service temperature 400°C.						
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 of the TIG rods (wt.-%)						
	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)						
Heat-treatment	Yield strength R _{p0.2}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact values ISO-V CVN J		
	MPa	MPa	%	+20 °C	-196 °C	
u	470 (>= 320)	610 (>= 510)	38 (>= 25)	140	58 (>= 32)	
u untreated, as-welded – shielding gas Ar						
Operating data						
	Polarity: DC (–)	Shielding gas: (EN ISO 14175) I 1	Marks: ✦ W 19 12 3L / ER316L	ø mm	L mm 1000	
				1,2		
				1.6		
				2.0		
				2.4		
				3.2		
				4,0		
Approvals						
TÜV (09500), DB (43.132.20), DNV GL, ABS, BV, NAKS, CE						