

BÖHLER SAS 4-FD

Flux cored wire, high-alloyed, chemical resistant

Classifications				
EN ISO 17633-A	EN ISO 17633-B			
T 19 12 3 Nb R M21 3	TS318-F M21 0			
T 19 12 3 Nb R C1 3	TS318-F C1 0			

Characteristics and typical fields of application

Rutile, strip alloyed, flux cored welding wire for GMAW of austenitic CrNiMo(Ti/Cb) alloyed steels preferably used in the horizontal and downhand position as well as the slightly vertical down position (1 o'clock). This product provides high productivity and is easy to operate achieving excellent welding characteristics, self releasing slag, almost no spatter formation and temper discoloration, smooth weld finish and safe penetration. Increased travel speeds as well as little demand for cleaning and pickling provide considerable savings in time and money. Suitable for service temperatures down to –120 °C. Resists to intergranular corrosion up to +400 °C. For positional welding (PF, PG, PE) our flux cored wire BÖHLER SAS 4 PW-FD should be preferred.

Base materials

1.4571 X6CrNiMoTi17-12-2, 1.4580 X6CrNiMoNb17-12-2, 1.4583 X10CrNiMoNb18-12, 1.4401 X5CrNiMo17-12-2, 1.4404 X2CrNiMo17-12-2, 1.4435 X2CrNiMo18-14-3, 1.4436 X3CrNiMo17-13-3, 1.4437 GX6CrNiMo18-12, 1.4409 GX2CrNiMo 19-11-2, 1.4581 GX5CrNiMoNb 19-11-2 UNS S31653, AISI 316, 316L, 316Ti, 316Cb

Typical analysis of all-weld metal (wt%)							
	С	Si	Mn	Cr	Ni	Мо	Nb
wt-%	0.03	0.6	1.3	18.8	12.2	2.7	+

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	−120 °C	
u	430 (≥ 350)	570 (≥ 550)	35 (≥ 25)	65	35 (≥ 32)	

u untreated, as-welded – shielding gas Ar + 18 % CO₂

Operating data								
→	Polarity: DC (+)	Shielding gases: M1 – M3; C1	Redrying: possible, 150°C/24 h	ø (mm) 1.2 1.6	Amps A 125 – 280 200 – 350	Voltage V 20 – 34 25 – 35		

Welding with standard GMAW-facilities possible, slightly trailing torch position (angel appr. 80°), when using $100 \% CO_2$ as shielding gas it is necessary to increase the voltage by 2 V; the gas flow should be 15-18 l/min