AX-307
AX-4370

Standard

ISO 14343-A	W 18 8 Mn/G 18 8 Mn	
ISO 14343-B	SSZ307	
Material number	1.4370	
AWS A5.9	ER307 mod.	

Area of application

Filler rod/filler wire for joints between differently alloyed steels and those hard to weld and 14%-Mn steels. Tough intermediate layers with hardfacings. Wear- and corrosion resistant overlays on rail and points parts, valve seats and cavitation protection shielding on hydraulic power machinery.

Capable of work hardening, very good cavitation resistance, crack-proof, thermal shock resistant, scale-resistant up to 850°C, insensitive to sigma-phase embrittlement above 500°C. Tough at sub-zero down to -110°C. Heat treatment is no problem. With operating temperatures of above 650°C consultation with the manufacturer is advisable. Excellent sliding and conveying properties. Very good weld and flow behaviour.

Special hints

The structure is created fully austenitically without delta ferrite.

Composition of the filler rod/filler wire (typical data in %)

C	Si	Mn	Cr	Ni			
0.08	0.8	6.5	18	8			

Important base materials

High strength, unalloyed and alloyed structural and tempering steels with and among each other; unalloyed and alloyed steels with high-alloyed Cr and Cr-Ni steels; heat-resistant steels up to 850° C; Austenitic manganese steels with each other and with other steels; sheet and tubular steels tough at sub-zero in combination with tough at sub-zero austenitic materials.

Material properties

Shielding gas	Argon	Mechanical
Heat treatment	untreated	properties of the weld
Test temperature	20°C	metal according to EN ISO 15792-1
0.2%-yield strength $Rp_{0.2}$	[MPa]	430
Tensile strength R_m	[MPa]	640
Elongation A (L_0= 5d) %	[%]	35
Impact strength Av	[J]	100

Applicable shielding gases (EN ISO 14175)

TIG: argon I1, MAG: mixed gases e.g. M12

Approval

(Request current scope if required)

Product form (other dimensions available on request)

Spools	Ø mm	0.8	1.0	1.2	1.6		
Rods	Ø mm x 1000 mm	1.6	2.0	2.4	3.2	4.0	5.0