

SI 307

Submerged Arc Welding Wire - Stainless Steels

Standards

AWS/ASME SFA - 5.9	~ER307
EN ISO 14343 - A	S 18 8 Mn
TS EN ISO 14343 - A	S 18 8 Mn
DIN M. No.	1.4370

Properties and Applications

Austenitic stainless steel welding wire for submerged arc welding of dissimilar steels, difficult to weld steels, armour plates, high manganese steels, rails, crossovers. Suitable also for depositing stress relieving buffer layers on crack sensitive base metals and hardsurfacing, e.g. crane wheels, cutting blades and dies where high degree of pressure and dynamical loads exists. Weld metal is resistant to operating temperatures up to 300°C and non-scalding up to 850°C and also highly corrosion resistant. Used in combination with SIF 501 and SIF 502 submerged arc welding fluxes. Depending on chemical composition of base metal, proper welding procedure, preheating and interpass temperatures shall be applied by also avoiding high admixture of base metal.

Typical Chemical Features of the Welding Wire

Type of Analysis	C	Si	Mn	Cr	Ni
Welding Wire	0.02	0.90	5.00	19.00	8.00

Typical Chemical Values of Weld Metal


Welding Flux	Type of Analysis	C	Si	Mn	Cr	Ni
SIF 502	Weld Deposit	0.04	0.90	5.00	18.50	8.00
SIF 501	Weld Deposit	0.04	0.85	5.50	18.50	7.00


Typical Mechanical Values of Weld Metal

Test Condition	Welding Flux	Yield Strength (N/mm ²)	Tensile Strength (N/mm ²)	Elongation A5 (%)	Charpy V-Notch Properties (J)	
As welded	SIF 502	420	610	40	20°C → 60	-60°C → 45
As welded	SIF 501	410	600	42	20°C → 70	-60°C → 50

Application Information

Welding Positions


PA


PB

Polarity:

= +

Welding Parameters & Efficiency

Diameter (mm)
2.40
3.20

Packaging Information

Product Code	Diameter (mm)	Quantity per Box	Box Gross Weight (kg)	Boxes per Outer Box	Outer Box Gross Weight (kg)	Packaging Type
43000IXAM2	2.40	25 kg	25.90	1	25.90	Wire Basket Spool (K435)
43000LXAM2	3.20	25 kg	25.90	1	25.90	Wire Basket Spool (K435)

Storage & Re-Drying Information

Shouldn't be exposed to high statical load and impact.
It should be stored in a dry room (relative humidity < 50%, room temperature > 20°C) on wooden pallets.