

DATA SHEET N. 3011

DAIKO 307Si

MIG – TIG – SAW

Description / Alloy type: Strong tough austenitic weld metal composition for dissimilar joints and buffer layers.

Specifications: **AWS A5.9** **EN ISO 14343-A** **W. Nr.**
ER307Si 18 8 Mn 1.4370

Applications: Mixed welding applications including the welding of CMn, stainless, hardenable and armour steels to themselves or each other.
Resistant to hot cracking is provided by the high manganese content.

Material to be welded: Dissimilar combination of CMn, stainless, hardenable, wear-resistant and armour steels. Also suitable for 13% Mn steel.

Composition:
(weight %)

%	C	Mn	Si	S	P	Cr	Ni	Mo	Cu
Min	0.040	5.5	0.65	-	-	17.0	7.5	-	-
Max	0.140	7.5	1.00	0.025	0.030	20.0	9.5	0.30	0.30
Typ	0.085	7.0	0.85	0.010	0.020	17.7	8.0	0.25	0.25

Typical parameters:

	TIG	MIG
Shielding	Argon	Ar + 3% O ₂ Ar + 1÷2,5% CO ₂
Current	DC-	DC+
Diameter	2.4 mm	1.2 mm
Parameters	50÷250A, 10÷20V	100÷290A, 17÷29V

All-weld properties:

As welded	Typ. TIG	Typ. MIG
Tensile strength [MPa]	620	620
0.2% proof stress [MPa]	450	420
Elongation 5d [%]	42	40
Impact Energy 20°C [J]	120	100
Impact Energy -80°C [J]	60	50

Complementary products: SMAW electrode (AWS A5.4 E307-26)