

DATA SHEET No. N071

DAIKO SF 617

MIG, TIG & SAW Wire

Description / Alloy type: Solid wire with nominal composition 55% Ni, 22% Cr, 12% Co and 9% Mo designed for high temperature service.

Specifications: **AWS A5.14** **EN ISO 18274**
ERNiCrCoMo-1 Ni6617

Applications: DAIKO SF 617 is primarily used for high temperature applications up to about 1100°C.

In addition to welding the parent metal alloy 617, it also gives excellent results in welding many dissimilar materials for high temperature applications such as alloy 800H and 800HT for service above 760°C, alloys 600 and 601, and cast alloys HK40, HP, HP45 mod..

Typical applications include furnace, combustion, pyrolysis, heat treatment components, flare tips, dusting and gas turbine parts.

Materials to be welded: **Matching Alloy 617**

ASTM: UNS N06617; DIN: 2.4663 (NiCr23Co12Mo);

Proprietary Alloy: Inconel™ alloy 617; Nicrofer™ 5520Co.

Other alloys

Alloy 800 and 800HT: ASTM UNS N08810, N08811, DIN 1.4876, Incoloy 800H, Incoloy 800HT, Nicrofer 3220H;

Alloy 601 and others: ASTM UNS N06601, DIN 2.4851, Inconel™ alloy 601, Nicrofer™ 6023, ASTM UNS N06333;

High Carbon Austenitic Alloys: Cast HK40, HP40Nb, etc.

Dissimilar welds between above.

Composition (weight %)

	C	Mn	Si	S	P	Cr	Ni	Mo	Fe	Cu	Co	Al	Ti
Min	0.05	-	-	-	-	20	44	8	-	-	10	0.8	-
Max	0.15	1.0	0.5	0.015	0.020	24	Bal.	10	3.0	0.5	15	1.5	0.6
Typ	0.08	0.1	0.1	0.002	0.001	22	55	9	0.5	0.2	12	1.0	0.3

Typical parameters:

	TIG	MIG	SAW
Shielding	Argon	Ar or Ar-He	Daikoflux
Current	DC-	pulsed	DC+
Diameter	2.4 mm	1.2 mm	1.6 mm
Parameters	100A, 12V	160A, 28V	260A, 32V

All-weld properties:

As welded	Typical TIG
Tensile strength [MPa]	>740
0.2% proof stress [MPa]	500
Elongation [%]	>40
Impact Energy at +20°C [J]	>200

Other products: DAIKO 117 SMAW electrode (ENiCrCoMo-1)