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**DATA SHEET No. N063**

# DAIKOWT 617

## TIG

**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
<b>Min</b>	0.05	-	-	-	-	20	44	8	-	-	10	0.8	-
<b>Max</b>	0.15	1.0	0.5	0.015	0.020	24	Bal.	10	3.0	0.5	15	1.5	0.6
<b>Typ</b>	0.08	0.1	0.1	0.002	0.001	22	55	9	0.5	0.2	12	1.0	0.3

**Typical parameters:**

	<b>TIG</b>
Shielding	Argon
Current	DC-
Diameter	2.4 mm
Parameters	100A, 12V

**All-weld properties:**

As welded	Typical <b>TIG</b>
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)