

Classifications

EN ISO 18274	AWS A5.14	Mat. No.
S Ni 6059 (NiCr23Mo16)	ERNiCrMo-13	2.4607

Characteristics and typical fields of application

Nickel based alloy. High corrosion resistance in reducing and, above all, in oxidizing environments. For joining and surfacing with matching and similar alloys and cast alloys. For welding the clad side of plates of matching and similar alloys.

Base materials

TÜV-certified parent metals

- 1.4565 – Alloy 24 – UNS S34565 – X2CrNiMnMoNbN25-18-5-4
- 2.4602 – Alloy C-22 – UNS N06022 – NiCr21Mo14W
- 2.4605 – Alloy 59 – UNS N06059 – NiCr23Mo16Al
- 2.4610 – Alloy C-4 – UNS N06455 – NiMo16Cr16Ti
- 2.4819 – Alloy C-276 – UNS N10276 – NiMo16Cr15W

Typical analysis of the TIG rods (wt.-%)

	C	Si	Mn	Cr	Mo	Ni	Fe
wt-%	0.01	< 0.10	< 0.5	23.0	16.0	Bal.	< 1.5

Structure: Austenite

Mechanical properties of all-weld metal

Heat-treatment	Yield strength R _{p0.2}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V KV J
	MPa	MPa	%	+20 °C
aw	450	700	35	120

Operating data

Polarity:	Shielding gas:	Marks:	ø (mm)	L mm
DC (–)	(EN ISO 14175) I1	✦ Ni 6059 / ERNiCrMo-13	1.6	1000
			2.0	1000
			2.4	1000
			3.2	1000

Welding instruction

Materials	Preheating	Postweld heat treatment
Matching and similar metals	None	None. Otherwise solution annealing: 1120 °C (2048 °F)/water

Approvals

TÜV (06462), GL (NiCr23Mo16), CE