

NIFIL 59 is an S Ni 6059 / ER NiCrMo-13 type solid MIG welding wire, supplied precision layer wound, depositing NiCr23Mo16 weld metal. Suitable for use with inert shielding gases.

NIFIL 59 is used for welding of Ni-alloys with high CrMo content, to match with Alloy 59 base material. Excellent resistance against pitting, chloride-induced stress corrosion cracking, and crevice corrosion in acid sulfur phosphorus and chlorine surroundings.

The high level of Mo in Alloy 59 is similar to alloys C276 and C4 but performance in a wide range of more oxidising media is significantly enhanced by increasing Cr to 23%. Total alloying exceeds the level typically present in alloy C22; it is therefore considered suitable for welding this group of alloys.

Classification	
EN ISO	18274: S Ni 6059 (NiCr23Mo16)
AWS	A5.14: ER NiCrMo-13

Approvals	Grade
TÜV	●
CE	

### Chemical analysis (Typical values in %)

C	Mn	Si	P	S	Cr	Ni	Mo	Fe
≤ 0.01	≤ 0.5	≤ 0.1	≤ 0.020	≤ 0.015	23	≥ 56	16	≤ 1.5

### All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation A5 (%)	Impact Energy ISO - V (J)
				+20 °C
As Welded	> 440	> 710	> 35	> 100

Gas test: 30 % He + 2 % H<sub>2</sub> + 0,05 % CO<sub>2</sub>, rest Ar

**Shielding Gas** - EN ISO 14175 : I1, I3








### Materials

Alloy 59; UNS N06059; N06022; ASTM B575; B626

NiCr23Mo16Al (2.4605), NiCr21Mo14W (2.4602), NiMo16Cr16Ti (2.4610), NiMo16Cr15W (2.4819),

X1NiCrMoCu 32-28-7 (1.4562), 1.4563, 1.4529, 1.4539

Storage
Keep dry and avoid condensation.

Current condition and welding position						
DC+						
						
PA	PB	PC	PD	PE	PF	PG