

Classifications

EN ISO 18274	AWS A5.9	Mat. No.
S Ni 8025 (NiFe30Cr29Mo)	ER383(mod.)	2.4656

Characteristics and typical fields of application

Nickel based alloy; resistant to intercrystalline corrosion and wet corrosion up to 450 °C (842 °F). Good corrosion resistance, especially in reducing environment. For joining and surfacing work on matching and similar – non-stabilized and stabilized – fully austenitic steels/cast steel grades containing Mo (and Cu).

For joining aforementioned steels to unalloyed/low-alloy steels.

Base materials

TÜV-certified parent metal
1.4577 – X3CrNiMoTi25-25,
and combinations of afore-mentioned materials with ferritic steels up to S355J

Typical analysis of solid wire (wt.-%)

	C	Si	Mn	Cr	Mo	Ni	Cu	Fe
wt-%	0.02	0.20	2.6	29.0	4.3	Bal.	1.8	30

Structure: Austenite

Mechanical properties of all-weld metal

Heat-treatment	Yield strength R _{p0.2}	Yield strength R _{p1.0}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V KV J
	MPa	MPa	MPa	%	+20 °C
aw	350	370	550	30	75

Operating data

Polarity: DC (+)	Shielding gas: (EN ISO 14175) I1, I3, M12 (ArHeC-30/0,5)	ø (mm) 1.0	Spool: BS300
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Welding instruction

Grundwerkstoffe	Vorwärmung	Wärmenachbehandlung
Matching metals	None (weld as cold as possible) cooling in air	If necessary solution annealing at 1120 °C (2048 °F)
Joining of matching austenitic steels to unalloyed / low-alloy steels / cast steel grades	According to parent metal	None

Approvals

TÜV (05588), CE