

## Classification

EN ISO 18274	AWS A5.14
W Ni Cr 20 Mn 3 Nb	ERNiCr-3

## Characteristics and typical fields of application

Avesta P10 is a nickel base alloy designed for dissimilar joints or stainless steels, nickel base alloys like alloy 600 and low-alloyed steels as well as some copper alloys.

Avesta P10 is also suitable for many creep resistant steels and nickel base alloys. The austenitic structure is very stable and the risk of hot or solidification cracking is relatively low.

### Corrosion resistance:

High resistance to stress corrosion cracking but also excellent resistance to intercrystalline corrosion due to the low carbon content and the absence of secondary phases.

Structure: Fully austenitic

Scaling temperature at 1100 °C (air)

## Base materials

Universal applications, alloy 600

## Typical analysis of solid wire (wt.-%)

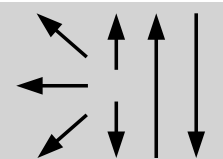
	C	Si	Mn	Cr	Ni	Nb	Fe	Ferrite
wt.-%	0.03	0.1	2.9	20.0	73	2.5	< 2.0	0

## Mechanical properties of all-weld metal

Heat treatment	Yield strength R <sub>p0.2</sub>	Tensile strength R <sub>m</sub>	Elongation A (L <sub>0</sub> =5d <sub>0</sub> )	Impact work ISO-V KV J
	MPa	MPa	%	+20 °C
u	410	660	33	-

u untreated, Shielding gas Ar (99,95 %)

## Operating data

	<b>Polarity</b> DC ( + )	Shielding gas Ar (99,95 %) Gas flow rate 4 – 8 l	<b>ø (mm)</b> 1.6 2.4
---	-----------------------------	--	-----------------------------

Heat treatment: generally none (in special cases quench annealing at 1050 °C)

Interpass temperature max. 100°C

Heat input max. 1.5 kJ/mm