

Classification

EN ISO 14343-A

G Z 17 15 Mn W

Characteristics and typical fields of application

Permitting toughness at subzero temperatures as low as -196 °C (-321 °F). Suitable for joining applications with cryogenic austenitic CrNi(N) steels / cast steel grades and cryogenic Ni steels suitable for quenching and tempering.

Base materials

TÜV-certified parent metal

1.5662 – X8Ni9; 1.4311 – X2CrNiN18-10

Typical analysis of solid wire (wt.-%)

	C	Si	Mn	Cr	Ni	W
wt-%	0.20	0.40	10.5	17.5	14.0	3.5

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	-196 °C
aw	430	460	600	30	80	50

Operating data

Polarity:	Shielding gas:	ø (mm)	Spool:
DC (+)	(EN ISO 14175) M12, M13, M21	1.0	B300
		1.2	B300

Welding instruction

Materials	Preheating	Postweld heat treatment
Cryogenic CrNi(N) steels / cast steel grades	None	None
Cryogenic Ni steels suitable for quenching and tempering	According to parent metal	None

Approvals

TÜV (02890), BV, DNV, GL, LR, CE