



Characteristics and scope of application

- Wire for Additive Manufacturing of high temperature resistant components.
- Age hardenable weld metal, heat treatment required for best properties
- Chemical composition optimized for lowest hot cracking susceptibility

Standard designations

DIN 17744	ASTM B 637	DIN Mat.-No.
NiCr19Fe19Nb5Mo3		2.4668

Typical chemical composition of filler metal

	C	Si	Cr	Ni	Mo	Fe	Nb	Ti	Al
Mass %	0.05	0.15	18.5	Bal.	3.0	18.0	5.0	1.0	0.5

All weld metal properties (min. values at rt)

Heat treatment	Yield strength	Tensile strength	Elongation	Impact toughness	
	Rp0.2	R _m	A ₅	ISO-V	
as welded	87 ksi	116 ksi	25%	-	-
heat treated (see below)	145 ksi	174 ksi	13%	-	-

Process details

Polarity	Shielding gas acc. to AWS A5.32
DC / +	SG-A, SG-AHe, SG-A-G (He 30% - H 2% - C ~0.1)
DC / -	SG-A, SG-AHe, SG-AH (max. 5% H ₂ DC / -)

Low heat input and interpass temperature < 302°F. Stringer bead technique recommended.
Post weld heat treatment 1325°F / 6h, furnace cooling 90°F/h to 1150°F / 8h, air cooling.

Packaging (tolerances acc. to AWS A5.02)

Diameter (in)		lbs/PU
1/16 - 1/8	X 36 in	11 / 22
0.035 – 0.045	BS 300 spool	33
0.06 – 1/8	K 415 / K 435 spool	55

Approvals on request