



### 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 <sub>m</sub>	A <sub>5</sub>	ISO-V	
as welded	600 MPa	800 MPa	25%	-	-
heat treated (see below)	1000 MPa	1200 MPa	13%	-	-

### Process details

Polarity	Shielding gas acc. to DIN EN ISO 14175
DC / +	I1, I3, Z (ArHeHC-30/2/~0.1)
DC / -	I1, I3, R1 (max. 5% H2 DC / -)

Low heat input and interpass temperature < 150°C. Stringer bead technique recommended.  
Post weld heat treatment 720°C / 6h, furnace cooling 50°C/h to 620°C / 8h, air cooling.

### Packaging (tolerances acc. to DIN EN ISO 544)

Diameter (mm)		kg
1.6 / 2.0 / 2.4 / 3.2	X 1000 mm	5 / 10
0.8 / 1.0 / 1.2	BS 300 spool	15
1.6 / 2.4 / 3.2	K 415 / K 435 spool	25

Approvals on request