EXATON Product Data Sheet

Exaton 19.9.Nb

W 'Tungsten inert gas arc welding'

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
Per-Ake Bjornstedt	P-O Oskarsson	Per-Ake Bjornstedt	EN008914	EN008303	2020-01-21	1 (2)

REASON FOR ISSUE

Product name changed from Sandvik to Exaton.

GENERAL

Filler metal 19.9.Nb is suitable for joining stainless steels of the 18Cr/8Ni/Nb and 18Cr/8Ni/Ti types. Due to the strenghtening effect of niobium, this grade is recommended if the weld metal will be exposed to temperatures above 400°C (750°F). It is used for TIG-welding.

CLASSIFICATIONS Wire Electrode		APPROVALS	
EN ISO 14343-A	W 19 9 Nb	CE	EN 13479
SFA/AWS A5.9	ER347	VdTÜV	00068
Werkstoffnummer	1.4551		

CHEMICAL COMPOSITION

	Wire/Strip (%)		
	Nom		
C	0.03		
Si	0.4		
Mn	1.3		
P	<0.025		
S	<0.015		
Cr	19.5		
Ni	9.5		
Mo	<0.3		
Co	<0.05		
Cu	<0.10		
N	<0.07		

MECHANICAL PROPERTIES OF WELD METAL

All Weld Metal

Properties	As welded Typ
Rp0.2 (MPa)	400
Rm (MPa)	610
A5 (%)	42
Z (%)	73
Charpy V at 20°C (J)	150
Charpy V at -196°C (J)	50

EXATON Product Data Sheet

Exaton 19.9.Nb

W 'Tungsten inert gas arc welding'

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
Per-Ake Bjornstedt	P-O Oskarsson	Per-Ake Bjornstedt	EN008914	EN008303	2020-01-21	2 (2)

OTHER DATA

CORROSION PROPERTIES: 19.9.Nb has good resistance to general corrosion and due to its niobium content, good resistance to intercrystalline corrosion.

RECOMMENDED WELDING DATA:

The parameters for TIG welding depend largely upon the base metal thickness and the welding application.

Electrode negative and a shielding gas of argon or helium should be used to prevent oxidation of the weld metal.

WELD METAL CHARACTERISTICS: The weld metal has an austenitic matrix with a ferrite number of 8-10FN according to the DeLong diagram.