EXATON Product Data Sheet

Exaton Ni53

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	EN009114	EN008976	2020-02-24	1 (2)

REASON FOR ISSUE

Change ownership

GENERAL

Exaton Ni53 is a nickel-chrome-cobalt-molybdenum alloy of type alloy 617. It has an excellent resistance to high temperature corrosion such as oxidation and carburization. The weld metal provides a combination of excellent metallurgical stability and strength in short and long term exposure to temperatures up to 1100°C (2012°F).

Applications for Exaton Ni53 are found in high temperature heat exchangers and valves, furnace tubing in the petrochemical industry, radiant heat tubes, gas turbines, components subjected to high temperatures in the chemical processing industry and components for power plants.

Exaton Ni53 is suitable for joining heat resistant nickel alloys, heat resistant austenitic and cast alloys such as:

– UNS N08810 (1.4958)

– UNS N08811 (1.4959)

– UNS N06617 (2.4663)

Exaton Ni53 can also be used for surfacing. It is used for TIG welding.

CLASSIFICATIONS Wire Electrode

SFA/AWS A5.14	ERNiCrCoMo-1
EN ISO 18274	S Ni 6617 (NiCr22Co12Mo9)
Werkstoffnummer	2.4663

APPROVALS

CE	EN 13479

CHEMICAL COMPOSITION

Wire/Strip (%)

	Nom
C	0.08
Si	<=1.0
Mn	<=1.0
P	<=0.010
S	<=0.010
Cr	22.5
Ni	53
Mo	9
Co	12
Al	1
Ti	<=0.6
Fe	<=1.0

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MECHANICAL PROPERTIES OF WELD METAL

	All Weld Metal
	As welded
Properties	**Typ**
Rp0.2 (MPa)	510
Rm (MPa)	770
Z (%)	42
Charpy V at 20°C (J)	130
Charpy V at -196°C (J)	105
	Comments: Elongation, A = 37

OTHER DATA

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 microstructure is fully austenitic.