EXATON Product Data Sheet

Exaton Ni54

G 'Gas-shielded metal-arc welding'

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
Per-Ake Bjornstedt	P-O Oskarsson	Per-Ake Bjornstedt	EN008898	EN008255	2020-01-20	1 (2)

REASON FOR ISSUE

Product name and Classification amended

GENERAL

Exaton Ni54 is a nickel-chrome-molybdenum alloy of type alloy C-22. It is a versatile alloy with excellent wet corrosion resistance in oxidizing and reducing media. It has better overall corrosion resistance than other Ni-Cr-Mo alloys such as alloy UNS N10276 (2.4819) and alloy UNS N06626 (2.4856). However, in severely reducing media alloy UNS N10276 is preferred where Exaton Ni56 is a better matching consumable. Applications for Exaton Ni54 are found in aggressively corrosive media such as chlorination systems, geothermal wells, HF furnace scrubbers, pesticide production, phosphoric acid production, SO cooling towers and for weld overlays on valves.

Exaton Ni54 is used for joining alloy UNS N06022 (2.4602) and is widely used as overmatching filler material for alloy UNS N10276 (2.4819) and other nickel-chrome-molybdenum alloys for better weld metal properties. It is used for surfacing low alloyed steels.

Applications for Exaton Ni54 are found in components for organic synthesis, flue gas scrubber systems, electrolytic galvanizing, plate heat exchangers, phosphoric acid production, wet chlorine gas, hypochlorite and chlorine dioxide atmosphere. Exaton Ni54 is also used in combustion-resistant components for high pressure oxygen service and ferric and cupric chloride environments. It is used for MIG/MAG welding.

CLASSIFICATIONS Wire Electrode

SFA/AWS A5.14	ERNiCrMo-10
EN ISO 18274	S Ni 6022 (NiCr21Mo13Fe4W3)
Werkstoffnummer	2.4602

APPROVALS

CE	EN 13479

CHEMICAL COMPOSITION

Wire/Strip (%)

	Nom
C	<=0.015
Si	<=0.08
Mn	<=0.50
P	<=0.020
S	<=0.010
Cr	21.5
Ni	56
Mo	13.5
W	3
Co	<=2.5
V	<=0.35
Fe	<=4

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MECHANICAL PROPERTIES OF WELD METAL

	All Weld Metal
	As welded
Properties	**Typ**
Rp0.2 (MPa)	500
Rm (MPa)	770
Z (%)	50
Charpy V at 20°C (J)	150
Charpy V at -196°C (J)	80
	Comments: Elongation, A = 45

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	H		Feed		U	
Ø	Min	Max	Nom	Nom	Min	Max	Min	Max	Min	Max
1.2	150	260	18.0				3	10	24	29

W = Gas consumption (l / min)

η = Recovery, g weld metal / 100g wire (%)

H = Deposit rate (kg weld metal / hour arc time)

Feed = Feeding rate (m/min)

U = Arc voltage (V)

OTHER DATA

RECOMMENDED WELDING DATA:

Electrode positive is used to give good penetration in all types of welded joint.

Shielding gases are used for sufficient protection of the weld pool.

WELD METAL CHARACTERISTICS: The microstructure is fully austenitic.