

EXATON Product Data Sheet

G 'Gas-shielded metal-arc welding'

Exaton Ni56

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
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REASON FOR ISSUE

Product name and Classification amended

GENERAL

Exaton Ni56 is a low carbon nickel-chrome-molybdenum alloy of type alloy C-276. It is a versatile alloy with excellent wet corrosion resistance in oxidizing and especially in reducing media. However, in oxidizing chloride containing environments alloy UNS N06022 (2.4602) is preferred where Exaton Ni56 is a better matching welding consumable. Applications for Exaton Ni56 are found in aggressively corrosive media such as chemical processing plants, pollution control, pulp and paper production, waste treatment and for the recovery of sour natural gas.

Exaton Ni56 is used for joining alloy UNS N10276 (2.4819) and other nickel-chrome-molybdenum alloys. It can also be used for dissimilar metal joining of nickel alloys, stainless steels and low-alloy steels. Exaton Ni56 can be used for surfacing low alloyed steels.

Applications for Exaton Ni56 are found in cryogenics, components in pulp and paper plants such as bleaching vessels, flue gas scrubber systems, components in sour-gas service, sulphuric acid coolers, chlorine gas, hypochlorite and chlorine dioxide atmosphere. Exaton Ni56 is also used in combustion-resistant components for high pressure oxygen service. It is used for MIG/MAG welding.

CLASSIFICATIONS Wire Electrode

APPROVALS

SFA/AWS A5.14	ERNiCrMo-4	CE	EN 13479
EN ISO 18274	S Ni 6276 (NiCr15Mo16Fe6W4)		
Werkstoffnummer	2.4819		

CHEMICAL COMPOSITION

Wire/Strip (%)

	Nom
C	<=0.02
Si	<=0.08
Mn	<=1
P	<=0.03
S	<=0.03
Cr	16
Ni	56
Mo	16
W	3.5
Co	<=2.5
V	<0.35
Fe	5

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MECHANICAL PROPERTIES OF WELD METAL

All Weld Metal

Properties	As welded Typ
Rp0.2 (MPa)	470
Rm (MPa)	750
Z (%)	45
Charpy V at 20°C (J)	170
Charpy V at -196°C (J)	130
Comments: Elongation, A = 40	

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	H		Feed		U	
$\emptyset$	Min	Max	Nom	Nom	Min	Max	Min	Max	Min	Max
0.8	40	120	12.0				4	8	15	19
1.2	150	260	18.0				3	10	24	29
1.6	230	350	18.0				3	5	25	30

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.