

EXATON Product Data Sheet

Exaton 27.31.4.LCu

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	EN009159	EN008933	2020-04-27	1 (2)

REASON FOR ISSUE

Product Description amended.

GENERAL

Exaton 27.31.4.LCu is a copper alloyed chromium-nickel-molybdenum filler material for welding of high-alloy austenitic stainless steels such as Sanicro 28 (UNS S08028, 1.4563) type. It is also suitable for joining Sanicro 41 (UNS N08825, 2.4858) and other similar materials.

Due to its outstanding corrosion properties, 27.31.4.LCu can be used in the most diverse environments, such as phosphoric and sulphuric acid, sour gas service in the oil & gas industry and chloride bearing seawater. Typical applications are found in heat exchangers, evaporators and transport piping. It is used for TIG-welding.

CLASSIFICATIONS Wire Electrode

EN ISO 14343-A W 27 31 4 Cu L
SFA/AWS A5.9 ER383

APPROVALS

CE EN 13479
VdTÜV 02629

CHEMICAL COMPOSITION

Wire/Strip (%)

	Nom
C	<=0.020
Si	<=0.2
Mn	1.7
P	<=0.015
S	<=0.010
Cr	27
Ni	31
Mo	3.5
Cu	1

MECHANICAL PROPERTIES OF WELD METAL

All Weld Metal

Properties	As welded
	Typ
Rp0.2 (MPa)	360
Rm (MPa)	540
Z (%)	65
	Comments:
	Elongation, A = 35

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OTHER DATA

CORROSION RESISTANCE: 27.31.4.LCu has high resistance to general corrosion, particularly in contaminated technical phosphoric acid. It has also very good resistance to intergranular corrosion and stress corrosion cracking. For example in 50% sulphuric acid at 80 °C for 1+3+3 days, the corrosion rate is about 0.23 mm/year.

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: Fully austenitic.
