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Sandvik 24.29.5.LCu

(Welding strip)

Sandvik 24.29.5.LCu is a strip electrode used to obtain a E385 of corrosion resistant overlay weld deposit in single layer on C-, CMn- and low-alloy steels using electroslag welding (ESW) with the flux Sandvik 47S. There are also other possible combinations and conditions.

Product standards

- EN ISO 14343
- ASME/AWS SFA5.9

CHEMICAL COMPOSITION - STRIP ELECTRODE

CHEMICAL COMPOSITION, WT%

C	Si	Mn	P	S	Cr	Ni	Mo	Cu
≤0.020	0.4	2	≤0.015	≤0.015	23.5	29	5.4	1.8

Ferrite content

Fully austenitic micro structure.

CHEMICAL COMPOSITION OF OVERLAY

Typical chemical composition of single layer obtained on C-Mn steel and low-alloyed steel.

CHEMICAL COMPOSITION, WT%

	Type of overlay	C	Cr	Ni	Mo	Cu
ESW 24.29.5.LCu/47S	E385	≤0,03	19,5-21	24-26	4,3-5	1,2-1,7

The micro structure is fully austenitic.

Consider the figures as examples. Parameters selected and conditions influence on the result. Please contact Sandvik for details and guidelines.

MECHANICAL PROPERTIES OF OVERLAY

Passes side bend testing according to ASME Section IX.

CORROSION PROPERTIES OF OVERLAY

Equal to the base metal 904L (UNS N08904). The resistance to pitting corrosion is better than for 317L.

Good resistance to stress corrosion cracking.

The resistance to intergranaular corrosion is good.

WELDING DATA

Process/Flux	Size	Current, A	Voltage, V	Travel speed, mm/min
ESW/47S	60 x 0.5 mm	1100 - 1400	23-26	130 - 220
ESW/47S	90 x 0.5 mm	1650 - 2100	23-26	130 - 220

Direct current, with electrode positive is normally used.

The welding data in the table represent the operation capability of the flux. The desired properties of the overlay are obtained by proper selection of the settings within the ranges.

APPLICATIONS

24.29.5.LCu is used for corrosion resistant weld surfacing, in particular where pitting corrosion is involved, of components in the chemical, petrochemical industries often in connection with sea-water cooling. Typical components are pressure vessels, heat exchangers etc.

It is used where fully austenitic overlays are required and where corrosion properties exceeding those of 317L are needed.

DISCLAIMER:
Recommendations are for guidance only, and the suitability of a material for a specific application can be confirmed only when we know the actual service conditions. Continuous development may necessitate changes in technical data without notice. This datasheet is only valid for Sandvik materials.