

Exceptional corrosion resistance in seawater

GENERAL DESCRIPTION

Special electrode for joining and surfacing of stainless steel type '904L'.

Exceptional resistance against seawater corrosion. (Far higher than normal 316 or 316L stainless steel.) Also very good corrosion resistance against sulphuric acid of all concentrations up to a temperature of 50 °C (122 °F). Caustic soda, most organic acids and even hydrochloric acid will cause no corrosion problems at room temperature.

Because of the low carbon content of the weld deposit there is no danger for intergranular corrosion.

Excellent weldability because of a very stable arc and easily removable slag. Spatter free and porous free welding.

Efficiency: 160%.

APPLICATIONS

Seawater resistant overlays and joints (e.g. shipbuilding). Chemical, food, pulp and paper industries. Pickling tanks, cooling towers, constructions for steel surface treatment, pumps, mixers, vessels, pipes, seawater heat exchangers, etc...

Applicable for steel types Uranus B6, Uddeholm 904L, Sandvik 2RK65, DIN Nr 1.4500, 1.4505, 1.4506, 1.4531, 1.4536, 1.4539, 1.4585, 1.4586.

CHEMICAL COMPOSITION (%) (Typical values, all weld metal)

C :	< 0.03	Cr :	20.00	Ni :	25.00	Mo :	4.50	N :	1.50
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MECHANICAL PROPERTIES (Typical values, all weld metal)

Yield Strength N/mm ²	Tensile Strength N/mm ²	Elongation 5d (%)	Impact Strength Charpy V notch (ISO-V)
≥ 400 MPa	≥ 580 MPa	≥ 35 %	≥ 80 J (20°C)

GENERAL INFORMATION

Welding positions	All, except vertical down				
Shielding gas	NA				
Packing	5 Kg in a plastic box				
Polarity	Ac or DC, reverse polarity (electrode positive)				
Diameter (mm)	2.0	2.5	3.2	4.0	5.0
Length (mm)	300	300	350	350	450
Approx. current (A)	40 - 60	70 - 90	90 - 130	120 - 150	160 - 200

Tips & Tricks

Clean weld area. Weld with a short arc and low amperage.

Welding Uddeholm 904L, Uranus B6 a.o. should be done only after thorough cleaning and with lowest possible heat input.

Deposit narrow stringer beads, remove slag between passes, avoid weaving.

Use an intermittent welding sequence to prevent overheating.

Keep the inter pass temperature below 100 °C (212 °F).

The information in this document is based on intensive tests and is accurate to the best of our knowledge. Do note that these values are only typical values for tests in accordance to prescribed standards. The suitability of the product should always be confirmed by qualification tests before use in any application. The information can be changed without previous notice.