Avesta 383 AC/DC

Covered electrode, high-alloyed, austenitic stainless, special applications

Classifications

EN ISO 3581-A	AWS A5.4 / SFA-5.4
E 27 31 4 Cu L R	E383-17

Characteristics and typical fields of application

Rutile coated fully austenitic electrode of E 27 31 4 Cu L R / E383-17 type primarily designed for welding 1.4563 / UNS N08028 (Alloy 28) and similar steels. High corrosion resistance in sulfuric and phosphoric acids. Excellent pitting resistance in acidic solutions containing chlorides and fluorides. Applications are found within the offshore industry, heat exchangers and joints in the chemical industry, for instance, manufacturing of phosphoric acid.

Base materials

1.4563 X1NiCrMoCu31-27-4
UNS N08028

Typical analysis

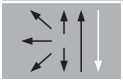
	C	Si	Mn	Cr	Ni	Mo	Cu
wt.-%	0.02	0.9	0.9	27	32	3.7	1.0

Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact energy ISO-V KV J	Hardness
	MPa	MPa	%	20°C	HB
u	420 (≥ 240)	560 (≥ 520)	30 (≥ 25)	55	200

u untreated, as-welded

Operating data



Polarity	DC + / AC
Electrode identification	383-17

Dimension mm	Current A
2.5 × 300	60 – 80
3.2 × 350	70 – 110
4.0 × 350	100 – 140

Suggested heat input max. 2.5 kJ/mm and interpass temperature max. 100ºC.
Post-weld heat treatment generally not needed. In special cases, solution annealing can be performed at 1070 – 1100ºC followed by water quenching.
Metal recovery approx. 120% at maximum welding current.

Approvals

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