

Classifications

EN ISO 3581-A

E 21 10 N R

Characteristics and typical fields of application

Rutile coated electrode of E 21 10 N R type. Designed for welding the high temperature stainless steel 253 MA® (1.4835 / UNS S30815), used for furnaces, combustion chambers and burners. Both the steel and filler metal offer excellent resistance to oxidation up to 1100°C. Balanced chemical composition to result in a ferrite content of max. 6 FN to give a crack resistant weld metal. Excellent resistance to high temperature corrosion. Not intended for applications exposed to wet corrosion.

Base materials

1.4835 X9CrNiSiNc21-11-2, 1.4818 X6CrNiSiNc19-10
UNS S30815, S30415
253 MA®, 153 MA™

Typical analysis


	C	Si	Mn	Cr	Ni	N
wt.-%	0.08	1.5	0.7	22	10.5	0.18

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	535 (≥ 350)	725 (≥ 550)	35 (≥ 30)	60	215

u untreated, as-welded

Operating data

	Polarity	DC+ / AC	Dimension mm	Current A
	Electrode identification	253 MA	2.0 × 300	45 – 65
			2.5 × 350	45 – 80
			3.2 × 350	70 – 120
			4.0 × 400	90 – 160
			5.0 × 400	150 – 200

Suggested heat input is max. 1.5 kJ/mm, interpass temperature max. 150°C.

Metal recovery approximately 110%.

Approvals

CE