

## 25.20 SUPER R

MMA (SMAW)

## RUTILE MMA ELECTRODE FOR 310 STAINLESS STEEL

## PRODUCT DESCRIPTION

MMA electrode with low silica rutile flux on high purity 310 core wire.  
Low silicon and high manganese levels are desirable to ensure freedom from microfissuring.  
Recovery is about 120% with respect to core wire, 65% with respect to whole electrode.

## CLASSIFICATIONS

AWS A5.4M (E310-16) AWS specification has Mn range of 1.0-2.5%.  
ISO 3581 E 25 20 R 3 2

## ASME IX QUALIFICATION

QW432 F-No 5

(This is nearest because the electrode does not strictly conform to AWS)

QW442 A-No 9

## WELDING POSITIONS (ISO/ASME)



PA/1G



PB/2F



PC/2G



PF/3Gu



PE/4G

## CHEMICAL COMPOSITION (WELD METAL WT %)

	C	Mn	Si	S	P	Cr	Ni	Mo	Cu
min.	0.08	2.0	--	--	--	25.0	20.0	--	--
max.	0.15	5.0	0.70	0.025	0.030	270	22.0	0.50	0.50
Typical	0.12	3.5	0.4	0.008	0.02	26	21	0.2	0.1

## ALL-WELD MECHANICAL PROPERTIES

As welded	Min.	Typical
Tensile strength (MPa)	560	575
0.2% proof strength (MPa)	350	400
Elongation (%) 4d	30	37
5d	25	35
Reduction of area %	--	50
Impact ISO-V(I) +20°C	--	80
-196°C	--	45
Hardness (HV)	--	200

## OPERATING PARAMETERS, DC +VE OR AC (OCV: 70V MIN)

Diameter (mm)	2.5	3.2	4.0	5.0
min. A	60	75	100	130
max. A	90	120	155	210

## PACKAGING DATA

	Diameter (mm)	Length (mm)	Item number	No of pieces		Weight (kg)	
				can	box	can	box
METAL CAN	2.5	350	2520SR-25	220	660	4.6	13.8
	3.2	350	2520SR-32	137	411	4.6	13.8
	4.0	350	2520SR-40	100	300	4.9	14.7
	5.0	350	2520SR-50	CONSULT US			

Redrying : 150 – 200°C/1-2h to restore to as-packed condition. Maximum 250° C, 3 cycles, 10h total

## FUME DATA (WT % TYPICAL)

Fe	Mn	Ni	Cr	Cu	F	OES (mg/m³)
9	10	2	7.5	<0.2	18	0.6

All information in this data sheet is accurate to the best of our knowledge at the time of printing. Please refer to [www.specialalloys.eu](http://www.specialalloys.eu) for any updated information.