

ULTRAMET 308H (Arosta 304H)

MMA (SAW)

RUTILE MMA ELECTRODE FOR 304H STAINLESS STEEL

PRODUCT DESCRIPTION

MMA electrode with rutile flux on matching core wire.

Recovery is about 110% with respect to core wire, 65% with respect to whole electrode.

Ultramet 308H gives both welder and weld metal all the benefits of advanced rutile electrode design.

These features include optimum versatility for downhand and positional welding, combined with high cosmetic finish and full volumetric weld metal integrity.

The smaller sizes are particularly suited to vertical and overhead welding applications including fixed pipework.

In addition, the 2.5mm diameter is specifically designed to enable the root pass to be deposited in single side butt welds using standard MMA equipment without a gas purge.

CLASSIFICATIONS

AWS A5.4M	E308H-16
ISO 3581	E 19 9 H R 3 2

ASME IX QUALIFICATION

QW432	F-No 5
QW442	A-No 8

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	FN
Min.	0.04	0.5	--	--	--	18.0	9.0	--	--	2
Max.	0.08	1.5	0.9	0.025	0.030	21.0	11.0	0.25	0.5	8
Typical	0.05	1	0.6	0.01	0.02	18.5	9.5	0.1	0.05	3

Mo + Nb + Ti = 0.25% max

Note: Cr content of 2.5mm is typically 19.5%.

ALL-WELD MECHANICAL PROPERTIES

As welded		Min.	Typical	High Temperature		
				650°C	732°C	816°C
	Tensile strength (MPa)	560	610	297	231	181
	0.2% proof strength (MPa)	350	445	234	187	156
	Elongation (%) 4d	35	45	--	--	--
	5d	30	43	28	51	53
	Reduction of area %	--	35	55	63	64
	Impact ISO-V(J) +20°C	--	80	--	--	--
	Hardness (HV)	--	190-210	--	--	--

OPERATING PARAMETERS, DC +VE OR AC (OCV: 50V 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)	
				pack	carton	pack	carton
METAL CAN	2.5	350	UM308H-25-1	225	675	3,8	11,4
	3.2	350	UM308H-32-1	140	420	4,5	13,5
	4.0	350	UM308H-40-1	81	243	4,2	12,6

FUME DATA (WT % TYPICAL)

Fe	Mn	Ni	Cr	Cu	F *	OES (mg/m³)
8	5	0.8	5	<0.2	16	1

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 for any updated information.