Ultramet™ 308H (Arosta® 304H)

TOP FEATURES

- Rutile MMA electrode for 304H stainless steel
- 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
- Recovery about 105%

TYPICAL APPLICATIONS

- Petrochemical and chemical process plants
- Cyclones and transfer lines in catalytic crackers

CLASSIFICATION

AWS A5.4	E308H-16
EN ISO 3581-A	E 19 9 H R 12

CURRENT TYPE

AC/DC+

WELDING POSITIONS

All positions, except vertical down

CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, ALL WELD METAL

	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%.

- = not specified

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Condition	Temperature	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)		Reduction of area (%)	Impact ISO-V (J) +20°C	Hardness (HV)
					4d	5d			
Required: AWS A5.4			350	560	35	30	-	-	-
Typical values	AW		445	610	45	43	35	80	190-210
		650°C	234	297	-	28	55	-	-
		732°C	187	231	-	51	63	-	-
		816°C	156	181	-	53	64	-	-

AW = As welded

- = not specified

OPERATING CURRENT RANGE

Diameter x Length (mm)	Current range (A)
2.5 x 300	60-90
3.2 x 350	75-120
4.0 x 350	100-155

AVAILABLE SIZES AND PACKAGING INFORMATION

Diameter x Length (mm)	Packaging	Electrodes/pack	Net weight/pack (kg)	Item number
2.5 x 300	VPMD	105	1.8	UM308H-25-2
3.2 x 350	VPMD	65	2.1	UM308H-32-2
4.0 x 350	VPMD	38	2.0	UM308H-40-2

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application

Safety Data Sheets (SDS) are available here:

Subject to Change – The information is accurate to the best of our knowledge at the time of printing.
Please refer to www.lincolnelectric.eu for any updated information.