

SUPERCORE 308H & SUPERCORE 308HP

FCAW

DOWNHAND AND ALL-POSITIONAL FCW FOR 304H STAINLESS STEEL

PRODUCT DESCRIPTION

Flux cored wires made with an austenitic stainless steel sheath and rutile flux system.

Supercore 308H is designed for ease of use, exceptional weld bead appearance and high weld metal integrity, primarily in downhand and H-V welding situations with plate and material of a 6mm thickness or greater.

Supercore 308HP designed for all-positional welding from 1G/2G up to 5G/6G pipework.

Metal recovery is about 90% with respect to wire.

CLASSIFICATIONS

AWS A5.22M	E308HT0-1/4
ISO 17633-B	TS308H-FB0

ASME IX QUALIFICATION

QW432	F-No 6
QW442	A-No 8

CHEMICAL COMPOSITION (WELD METAL WT %)

	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	FN
min.	0.04	1.0	--	--	--	18.0	9.0	--	--	3
max.	0.08	2.0	1.0	0.03	0.04	20.0	11.0	0.5	0.5	8
Typical	0.05	1.3	0.5	0.01	0.02	18.8	9.5	0.1	0.1	5

ALL-WELD MECHANICAL PROPERTIES

As welded		Min.	Typical	High Temperature		
				650°C	732°C	816°C
	Tensile strength [MPa]	550	620	287	222	163
	0.2% proof strength [MPa]	--	420	213	177	140
	Elongation [%] 4d	30	40	--	--	--
	5d	30	36	30	46	40
	Reduction of area [%]	--	50	58	69	74
	Impact ISO-V(J) +20°C	--	100	--	--	--
	Aged at 730°C/1000h	--	90	--	--	--

TYPICAL OPERATING PARAMETERS

Shielding gas: 80%Ar-20%CO₂ or 100% CO₂ at 20-25l/min. Proprietary gases may be used but argon should not exceed 85%.

Current: DC+ve ranges as below for Ar-20%CO₂. Welding with 100%CO₂ requires approx 3V higher:

Diameter (mm)	amp-volt range	typical	stickout
1.2	120A-22V to 280A-34V	180A-29V	12 – 20mm
1.2P	120A-22V to 250A-32V	150A-25V	12 – 20mm
1.6	200A-28V to 330A-34V	230A-30V	15 – 25mm

PACKAGING DATA

Diameter (mm)	Weight (kg)	Packaging	Item number
1.2	15	S300	SC308H-12
1.2	15	S300	SC308HP-12
1.6	15	S300	SC308H-16

FUME DATA (WT % TYPICAL)

Fe	Mn	Ni	Cr ³	Cr ⁶	Cu	F	OES (mg/m ³)
13	8	1	7	2	<1	12	1

HIGH TEMPERATURE ALLOYS