

SUPERCORE 308L & SUPERCORE 308L P

FCAW

RUTILE FLUX CORED WIRES

STAINLESS STEELS

PRODUCT DESCRIPTION

Flux cored wires – the wires are made with an austenitic stainless steel sheath and rutile flux system. Supercore 308L combines easy operability, high deposit quality and exceptional weld bead appearance for downhand and HV welding. Supercore 308LP is designed for all-positional welding including fixed pipework.

Metal recovery is about 90% with respect to the wire.

The Supercore 308L wire is not suitable for applications requiring PWHT or solution annealing – for these applications, it is recommended that Supercore 308LP is used.

CLASSIFICATIONS

	Supercore 308L	Supercore 308LP
AWS A5.22M	E308LT0-1/4	E308LT1-1/4
ISO 17633-A	T 19 9 L R C/M 3	T 19 9 L R C/M 2
ISO 17633-B	TS308L-FB0	TS308L-FB1
Approvals	TÜV, DNV, LRS	TÜV

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.	--	0.5	0.2	--	--	18.5	9.0	--	--	3
Max.	0.04	2.0	1.0	0.025	0.030	20.5	11.0	0.3	0.3	12
Typical	0.03	1.3	0.7	0.02	0.02	19.5	10	0.1	0.1	8

ALL-WELD MECHANICAL PROPERTIES

As welded	Min.	Typical
Tensile strength [MPa]	520	560
0.2% proof strength [MPa]	320	400
Elongation [%] 4d	35	43
5d	30	42
Reduction of area [%]	--	60
Impact ISO-V(J) +20°C	--	80
-110°C	--	40
Hardness [HV]	--	200

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	120 – 280A, 22 – 34V	180A, 29V	15 – 20mm
1.2P	120 – 250A, 22 – 32V	150A, 25V	15 – 20mm
1.6	200 – 350A, 26 – 36V	250A, 30V	15 – 25mm

PACKAGING DATA

Diameter [mm]	Weight [kg]	Packaging	Item number
1.2	15	S300	SC308L-12
1.2	15	S300	SC308LP-12
1.6	15	S300	SC308L-16

FUME DATA (WT % TYPICAL)

Fe	Mn	Ni	Cr ³	Cr ⁶	Cu	F	OES [mg/m ³]
12	6	1	7	1	<1	12	1