SUPERCORE 309L & SUPERCORE 309LP

FCAW

RUTILE FLUX CORED WIRES

PRODUCT DESCRIPTION

Flux cored wires – the wires are made with an austenitic stainless steel sheath and rutile flux system. **Supercore 309L** combines easy operability, high deposit quality and exceptional weld bead appearance for downhand and HV welding.

CLASSIFICATIONS

	SUPERCORE 309L	SUPERCORE 309LP
AWS A5.22M	E309LT0-1/4	E309LT1-1/4
ISO 17633-A	T 23 12 L R C/M 3	T 23 12 L R C/M 2
ISO 17633-B	TS309L-F C1/M21 0	TS309L-F C1/M211
Approvals	TÜV, LRS	TÜV, LRS, ABS, DNV

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	--	--	--	22.0	12.0	--	--	12
Max.	0.04	2.0	1.0	0.025	0.030	25.0	14.0	0.3	0.3	22
Typical	0.03	1.3	0.6	0.02	0.02	24	12.5	0.1	0.1	15

ALL-WELD MECHANICAL PROPERTIES

As welded		**Min.**	**Typical**
Tensile strength (MPa)		520	560
0.2% proof strength (MPa)		320	445
Elongation (%)	**4d**	30	40
	5d	25	36
Reduction of area (%)		--	52
Impact ISO-V(J)	**+20°C**	--	65 *
	-110°C	--	55 *
Hardness (HV)		--	205

* These values are for Supercore 309LP. Values for Supercore 309L are 45J at +20°C, 40J at -20°C.

OPERATING PARAMETERS

Shielding gas: Either 80%Ar-20%CO_2 or 100% CO_2 shielding gas at 20-25l/min. Proprietary gases may be used but argon should not exceed 85%.

Current: DC+ve ranges as below for Ar-20%CO_2. Welding with 100%CO_2 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

PACKAGING DATA

Diameter (mm)	Weight (kg)	Packaging	Item number
0.9	12.5	S300	SC309L-09
1.2	5	S200	SC309LMD-12
1.2	15	S300	SC309L-12
1.2	15	S300	SC309LP-12
1.6	15	S300	SC309L-16

FUME DATA (WT % TYPICAL)

Fe	Mn	Ni	Cr^3	Cr^6	Cu	F	OES (mg/m³)
9	4	1	6	1	<1	15	1.2