

SUPERCORE 309Mo & SUPERCORE 309MoP

FCAW

RUTILE FLUX CORED WIRE

STAINLESS STEELS

PRODUCT DESCRIPTION

Flux cored wires made using an austenitic stainless steel sheath and rutile flux system. Supercore 309Mo combines easy operability, high deposit quality and exceptional weld bead appearance for downhand and HV welding. Supercore 309MoP is designed for all-positional welding.

Metal recovery is about 90% with respect to wire.

CLASSIFICATIONS

	Supercore 309Mo	Supercore 309MoP
AWS A5.22M	E309LMoT0-1/4	E309LMoT1-1/4
EN ISO 17633-A	T 23 12 2 L R C/M 3	T 23 12 2 L P C/M 2
EN ISO 17633-B	TS309LMo-F C1/M21 0	TS309LMo-F C1/M21 1
Approvals		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	2.0	--	15
Max.	0.04	2.0	1.0	0.025	0.030	25.0	14.0	3.0	0.3	25
Typical	0.03	1.3	0.7	0.01	0.02	23	12.8	2.3	0.1	20

ALL-WELD MECHANICAL PROPERTIES

As welded	Min.	Typical
Tensile strength [MPa]	550	700
0.2% proof strength [MPa]	350	550
Elongation [%] 4d	25	32
5d	25	30
Reduction of area %	--	40
Impact ISO-V(I) +20°C	--	50
Hardness (HV)	--	245

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	15-20mm
1.2P	120A-22V to 250A-32V	160A-26V	15-20mm

PACKAGING DATA

Diameter (mm)	Weight (kg)	Packaging	Item number
1.2	15	S300	SC309MO-12
1.2	15	S300	SC309MOP-12

FUME DATA (WT % TYPICAL)

Fe	Mn	Ni	Cr ³	Cr ⁶	Cu	F	OES (mg/m ³)
11	6	2	8.5	1	<1	11	0.8

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.