

SUPERCORE 625P

FCAW

RUTILE ALL-POSITIONAL FLUX CORED WIRE

PRODUCT DESCRIPTION

Flux cored wire made with a nickel alloy sheath and rutile flux system.

Supercore 625P is designed for all-positional welding and combines easy operability, high deposit quality and exceptional weld bead appearance.

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

CLASSIFICATIONS

AWS A5.34M	ENiCrMo3T1-1/4
ISO 12153	T Ni 6625 P M/C 2
APPROVALS	ABS, DNV, LRS

ASME IX QUALIFICATION

QW432 F-No 43

CHEMICAL COMPOSITION (WELD METAL WT %)

	C	Mn	Si	S	P	Cr	Ni	Mo	Nb	Cu	Ti	Fe
Min.	--	--	--	--	--	20.0	58.0	8.0	3.15	--	--	--
Max.	0.10	0.50	0.50	0.015	0.02	23.0	--	10.0	4.15	0.50	0.40	5.0
Typical	0.02	0.3	0.2	0.005	0.005	21	66	8.5	3.4	0.02	0.2	1.0

ALL-WELD MECHANICAL PROPERTIES

As welded	Min.	Typical
Tensile strength (MPa)	690	770
0.2% proof strength (MPa)	420	480
Elongation (%) 4d	25	46
5d	22	42
Reduction of area (%)	--	42
Impact ISO-V(J) +20°C	--	95
-196°C	--	80
Lateral expansion (mm) -196°C	--	1.00
CTOD (mm) -170°C	--	0.50
Hardness cap/mid (HV)	--	230/230

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. 2-3V higher:

Diameter (mm)	amp-volt range	typical	stickout
1.2 (downhand)	150 – 250A, 25 – 32V	180A, 29V	15 – 20mm
1.2 (positional)	150 – 180A, 25 – 28V	160A, 26V	15 – 20mm

PACKAGING DATA

Diameter (mm)	Weight (kg)	Packaging	Item number
1.2	5	S200	SC625PMD-12
1.2	15	S300	SC625P-12

FUME DATA (WT % TYPICAL)

Fe	Mn	Ni	Cr ³	Cr ⁶	Cu	F	OES (mg/m ³)
1	2	10	5	5	0.1	5	1.0