

# SUPERCORE 2507 & SUPERCORE 2507P

**FCAW**

## RUTILE FLUX CORED WIRES FOR SUPERDUPLEX STEELS

### PRODUCT DESCRIPTION

Flux cored wire made with an alloyed stainless steel sheath and rutile flux system. The **Supercore 2507** combines easy operability, high deposit quality and exceptional bead appearance for downhand and HV welding. **Supercore 2507P** combines easy operability, high deposit quality for both positional pipework and downhand welding. Metal recovery is about 90% with respect to the wire.

### CLASSIFICATIONS

	Supercore 2507	Supercore 2507P
AWS A5.22M	E2594T0-4	E2594T1-4
ISO 17633-A	T 25 9 4 N L R M213	T 25 9 4 N L P M212

### ASME IX QUALIFICATION

QW432	F-No 6
QW442	A-No --

### CHEMICAL COMPOSITION (WELD METAL WT %)

	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	W	N	PRE <sub>N</sub>
<b>Min.</b>	--	0.5	--	--	--	24.0	8.5	3.5	--	--	0.20	40
<b>Max.</b>	0.04	2.0	1.0	0.02	0.03	26.0	10.5	4.5	0.5	0.5	0.30	--
<b>Typical</b>	0.03	1.0	0.5	0.010	0.02	24.5	9.3	3.8	0.05	0.05	0.23	41

Pitting resistance equivalent PREN = Cr + 3.3Mo + 16N

### ALL-WELD MECHANICAL PROPERTIES

As welded	Min.	Typical
Tensile strength [MPa]	760	870
0.2% proof strength [MPa]	550	660
Elongation (%) 4d	15	30
5d	18	29
Reduction of area (%)	--	38
Impact ISO-V(I) +20°C	--	60
-20°C	--	45
-50°C	--	35
Hardness [HV]	--	300

### TYPICAL OPERATING PARAMETERS

**Shielding gas:** 80%Ar-20%CO<sub>2</sub> 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<sub>2</sub>:

Diameter (mm)	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
1.2	15	S300	SC2507-12
1.2	15	S300	SC2507P-12

### FUME DATA (WT % TYPICAL)

Fe	Mn	Ni	Cr <sup>3</sup>	Cr <sup>6</sup>	Cu	F	OES (mg/m <sup>3</sup> )
11	6	1	9	2	< 1	12	1.0

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](http://www.specialalloys.eu) for any updated information.