Supercore™ 16.8.2P

TOP FEATURES

- Designed for all-position welding including ASME 5G/6G fixed pipework
- Suitable for welding all high-carbon 3XXH austenitic stainless steels
- Optimised weld metal composition for long-term service at temperatures up to 800°C
- Controlled Cr+Mo and ferrite content for high resistance to thermal embrittlement
- Excellent elevated-temperature creep strength and oxidation resistance.
- Proven solution for high-temperature piping and process equipment.

TYPICAL APPLICATIONS

- Furnace parts
- Gas and steam turbine
- Petrochemical
- Chemical process plants
- Power generation industries

CLASSIFICATION

AWS A5.22	EGT1-1/4
EN ISO 17633-B	TS16-8-2-F C1/M21 1*

(*: Nearest classification, Cr max 17%. Ni max 10%)

CURRENT TYPE

DC+

WELDING POSITIONS

All

SHIELDING GASES (ACC. EN ISO 14175)

M21	Mixed gas Ar+ 15-25% CO_2
Flow rate	15-25 l/min

CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, ALL WELD METAL

	C	Mn	Si	S	P	Cr	Ni	Mo*	Cu	FN
Typical	0.05	1.2	0.5	0.01	0.02	16.2	9.2	1.1*	0.1	4

*Mo controlled around 1.0 – 1.3% unless requested otherwise.

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Condition	High Temperature	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)		Reduction of area (%)	Impact ISO-V (J)		
					4d	5d		+20°C	-130°C	-196°C
Required			-	560	35	25	-	-	-	-
Typical values	AW		410	620	42	42	50	100 (1.8)	50 (0.8)	45 (0.7)
		650°C	207	290	-	30	66	-	-	-
		732°C	180	224	-	44	68	-	-	-
		816°C	134	160	-	39	79	-	-	-

AW = As welded

LE = Charpy lateral expansion, mm (0.38mm = 15 mils)

- = not specified

AVAILABLE SIZES AND PACKAGING INFORMATION

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.2	SPOOL (S300)	15.0	SC1682P-12

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application

Safety Data Sheets (SDS) are available here:

Subject to Change – The information is accurate to the best of our knowledge at the time of printing.
Please refer to www.lincolnelectric.eu for any updated information.