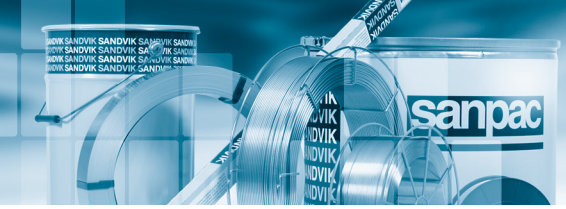

Datasheet updated 2012-08-02 19:10:27 (supersedes all previous editions)

Sandvik 29.8.2.L

(Welding wire)

Sandvik 29.8.2.L is a filler material suitable for welding the super-duplex grade Sandvik SAF 2906. It is used for gas shielded arc welding and submerged-arc welding. Sandvik 29.8.2.L is available as wire and rods.

STANDARDS

- UNS S32906

CHEMICAL COMPOSITION - FILLER METAL

C max	Si	Mn	P max	S max	Cr	Ni	Mo	N
0.025	0.4	1.0	0.020	0.015	29	7	2.4	0.36

CHEMICAL COMPOSITION - ALL-WELD METAL

The following data is typical for non heat treated all-weld metal made by TIG welding with Argon+2%N_2 shielding gas.

CHEMICAL COMPOSITION, WT%

C max	Si	Mn	P max	S max	Cr	Ni	Mo	N
0.025	0.4	1.0	0.020	0.015	29.0	6.8	2.3	0.35

The following data is typical for non heat treated all-weld metal made by SAW and flux, Sandvik 15W.

CHEMICAL COMPOSITION, WT%

C	Si	Mn	P max	S max	Cr	Ni	Mo	N
0.02	0.6	0.8	0.020	0.015	28.5	6.8	2.3	0.32

MICROSTRUCTURE - ALL-WELD METAL

Austenitic-ferritic (duplex) microstructure with approximately 50 FN, calculated from the WRC-92 diagram.

MECHANICAL PROPERTIES - ALL-WELD METAL

TIG

Temperature	°C	20
Yield strength, $R_{p0.2}$	MPa	670
Tensile strength, R_m	MPa	880
Elongation, A	%	25
Impact strength, Charpy V	J	150

SAW

Temperature	°C	20
Yield strength, $R_{P0.2}$	MPa	660
Tensile strength, R	MPa	860
Elongation, A	%	25
Impact strength, Charpy V	J	115

PHYSICAL PROPERTIES- ALL-WELD METAL

Thermal conductivity, W/m °C, at 20 °C (68 °F) 16
Thermal expansion per °C, from 20°C (68 °F) to 400°C (750 °F) 14.5x10-6
Density, g/cm3, at 20 °C (68 °F) 7.9

CORROSION RESISTANCE- ALL-WELD METAL

Intergranular corrosion
Streicher (ASTM A262 PrB) 0.15 mm/year

RECOMMENDED WELDING DATA

TIG welding
The parameters for TIG welding depend largely upon the base metal thickness and the welding application.

Electrode negative and a shielding of Argon+2%N_2.

Submerged-arc welding
Electrode positive is suggested for joint welding to give good penetration.

Wire diameter, mm	Current, A	Voltage, V
2.0	200-300	28-32
2.4	250-450	28-32
3.2	300-500	29-34

Recommended flux is Sandvik 15W.

DISCLAIMER:
Recommendations are for guidance only, and the suitability of a material for a specific application can be confirmed only when we know the actual service conditions. Continuous development may necessitate changes in technical data without notice. This datasheet is only valid for Sandvik materials.