



Sandvik 15W

(Welding flux)

Sandvik 15W is a basic, agglomerated flux for use with all austenitic stainless wire electrodes, especially when high impact strength is aimed. It is particularly suited for Sandvik's range of duplex wire electrodes, in particular Sandvik 22.8.3.L and 25.10.4.L due to the excellent impact properties obtainable in the weld metal.

The relatively high basicity also makes Sandvik 15W suitable for use in fully austenitic welds where good hot cracking resistance is necessary. Due to its low niobium content burn-off it can be used advantageously with stabilized wire electrodes, such as AWS 347 and 318.

STANDARDS

- EN number 760 S A AF 2

APPROVALS

Contact us for latest information on approvals.

CHEMICAL COMPOSITION (NOMINAL), %

SiO ₂	CaF ₂	Al ₂ O ₃
7	50	40

FLUX DATA

Bulk weight	1.0 kg/l
Basicity (Boniszewski)	1.7
Current capacity using wire electrode, diameter 2.4 mm	700 A
Flux consumption	0.9 kg/kg strip electrode

MECHANICAL PROPERTIES

Sandvik flux 15W gives the following mechanical properties for the filler wires below.

Sandvik wire	Rp0.2	Rm	A 5	KV (J)		
	(MPa)	(MPa)	(%)	20°C	-40°C	-196°C
19.12.3.L	390	530	41	100	85	40
20.25.5.LCu	345	550	40	125	-	100
22.8.3.L	620	790	29	115	95	80
25.10.4.L	650	840	28	85	70	60
Sanicro 60	465	725	45	168	-	138

WIRE WELDING

ALLOYING VECTOR

The alloying vector describes the difference in chemical composition between the filler metal and the undiluted all-weld metal due to the influence of the flux. The following table presents data for Sandvik 15W in combination with Sandvik wire electrodes.

Element	Sandvik wire electrode				
	19.12.3.L	20.25.5.LCu	22.8.3.L	25.10.4.L	Sanicro 60
C	0	0	0	+0.004	0
Si	+0.1	+0.2	+0.1	+0.1	+0.3
Mn	-0.3	-0.4	-0.3	-0.1	0
Cr	-0.5	-0.4	-0.5	-1.0	-0.4
Ni	0	0	0	0	+0.5
Mo	0	0	0	0	0
Nb	-	-	-	-	-0.2
N	0	0	-0.01	-0.06	0

WELDING PARAMETERS

Direct current, with electrode positive is normally used for joint welding to give good penetration.

Wire diameter, mm	Current, A	Voltage, V	Travel speed, mm/min
1.6	250-450	28-32	200-400
2.4	300-500	29-34	250-500
3.2	400-600	30-35	250-600
4.0	500-700	30-35	250-600

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.