

Submerged Arc Welding Wire for Mild Steels

Classification

EN ISO 14171 : S2 (L-860 ile S 35 2 AB S2)
AWS A5.17 : EM12

General Description

AS S2 (30 kg spool) and ASFIL S2 (320-350 kg drum) are copper coated submerged arc welding wires designed particularly for the welding of middle and high strength steels.

Chemical Composition (w%), Typical, Wire

C	Si	Mn	S	Cu
0.10	0.07	0.90	0.025	< 0.30
0.05 *	0.25 *	1.20 *	0.020 *	< 0.15 *

(*) Typical weld metal composition with flux LW 860

Approvals (with flux LW-860)

CE, GOST, NAKS, SEPRO, TSE, TÜV

ABS (3M,3YM) **BV** (A3YM) **DNV** (III YM)
GL (3YM) **LRS** (3M,3YM) **TL** (3YM)
RINA (3Y42)

with flux LW 761 :

TL (3YM)

with flux LW 780 :

ABS (3M,3YM) **GL** (3YM)

Mechanical Properties, Typical, All Weld Metal

Yield Strength : 370 - 440 N/mm ²	with flux LincolnWeld 860 : Yield Strength : 430 N/mm ²
Tensile Strength : 450 - 530 N/mm ²	Tensile Strength : 490 N/mm ²
Elongation (L=5d) : 25 - 30 %	Elongation (L=5d) : 25 %
	Impact (ISO-V) : 50 J (-20°C)

Note : Tensile and Yield Strength values are given in a wide range, as the submerged arc welding flux compositions might vary considerably.

Materials to be Welded

	DIN	EN
General Structural Steels	St 33, St 34, St 37, St 44, St 44-2, St 44-3, St 52, St 52-3	S185, S235, S275, S355
Fine Grained Steels	StE 255 - StE 355 WStE 255 - WStE 355	S255N - S355N P255NH - P355NH
Pipe Materials	StE 210-7 - StE 360-7 StE 290-7 TM - StE 360-7 TM X42, X46, X52 (API 5LX)	L210 - L360NB L290MB - L360MB -
Boiler and Pressure Vessel Steels	17 Mn 4, 19 Mn 6 H1, H11	P295GH, P355GH P235GH, P265GH
Elevated Temp. Steels	St 35-8, St 45-8	P235G1TH - P255G1TH
Ship Plates	A, B, C, D	-
Cast Steels	GS-38, GS-45	GE200, GE240

Packing and Diameter Informations

Diameter	2.0	2.4	3.2	4.0	Spool Weight	Drum Weight
Submerged Arc Welding Wire	X	X	X	X	25 kg	350 / 650 kg

Liability : All information in this data sheet is based on the best available knowledge, is subject to change without notice and can only be considered as suitable for general guidance. **Fumes** : Consult information on Welding Safety Sheet, available upon request.