

Submerged Arc Welding Wire for Mild Steels

Classification

EN ISO 14171 : S2 (L-860 ile S 35 2 AB S2)
AWS A5.17 : EM12K

General Description

AS EM12K is copper coated submerged arc welding wire designed particularly for welding of mild steels. It contains higher Si than AS S2 submerged arc welding wire.

Chemical Composition (w%), Typical, Wire

C	Si	Mn	S	Cu
0.10	0.13	1.90	0.025	< 0.30
0.05 *	0.30 *	1.20 *	0.020 *	< 0.15 *

*) Typical weld metal composition with flux LincolnWeld 860

Mechanical Properties, Typical, All Weld Metal

Yield Strength	: 370 - 450 N/mm ²	with flux LincolnWeld 860 :	Yield Strength	: 440 N/mm ²
Tensile Strength	: 450 - 540 N/mm ²		Tensile Strength	: 510 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 HI, HII	P295GH, P355GH P235GH, P265GH
Elevated Temp. Steels	St 35-8, St 45-8	P235G1TH - P255G1TH
Ship Plates	A, B, C, D AH32 - EH36	- -
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