

Jungo® 316L

CLASSIFICATION

AWS A5.4	E316L-15	A-Nr	8	Mat-Nr	1.4430
ISO 3581-A	E 19 12 3 L B 2 2	F-Nr	5		
		9606 FM	5		

TEMPERATURE RANGE

Pressurized parts : -120...+350°C
Oxidation resistance : n.a

GENERAL DESCRIPTION

Basic coated electrode for low temperature applications
Good impact values down to -196°C
Good weldability and smooth bead appearance
Low carbon content
High resistance against general and intercrystalline corrosion

WELDING POSITIONS (ISO/ASME)



PA/1G



PB/2F



PC/2G



PF/3Gu



PE/4G



PH/5Gu

CURRENT TYPE

DC +

APPROVALS

BV

316LBT

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

C	Mn	Si	Cr	Ni	Mo	FN [acc.WRC 1992]
0.025	1.6	0.4	18.5	11.0	2.7	4-10

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Condition	0.2% Proof strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J)	
				+20°C	-196°C
Required: AWS A5.4 ISO 3581-A Typical values	not required min. 320 450	min. 490 min. 510 650	min. 30 min. 25 35	not required not required 100	
AW					35

PACKAGING AND AVAILABLE SIZES

	Diameter (mm)	2.5	3.2	4.0
	Length (mm)	350	350	350
Carton + PE foil	Pieces / unit	135	150	100
	Net weight/unit (kg)	2.7	4.8	4.8
SRP	Pieces / unit	-	56	30
	Net weight/unit (kg)	-	1.8	1.4

Identification Imprint: 316L-15 / JUNGO 316 L Tip Color: red

Jungo® 316L: rev. C-EN26-01/02/16

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EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	EN 10213-4	Mat. Nr	ASTM/ACI A240/A312/A351	UNS
Extra low carbon [C <0.03%]					
	X2CrNiMo17-12-2		1.4404	(TP)316L CF-3M	S31603 J92800
	X2CrNiMo18-14-3		1.4435	(TP)316L	S31603
	X2CrNiMoN17-11-2		1.4406	(TP)316LN	S31653
	X2CrNiMoN17-13-3		1.4429		
Medium carbon [C >0.03%]					
	X4CrNiMo17-12-2		1.4401	(TP)316	S31600
	X4CrNiMo17-13-3		1.4436		
		GX5CrNiMo19-11	1.4408	CF 8M	J92900
Ti-, Nb stabilized					
	X6CrNiMoTi17-12-2		1.4571	316Ti	S31635
	X6CrNiMoNb17-12-2		1.4580	316Cb	S31640
	X6CrNiNb18-10		1.4550	(TP)347	S34700
		GX5CrNiNb19-10	1.4552	CF-8C	J92710

CALCULATION DATA

Sizes		Current range (A)	Current type	Arc time	Energy	Dep. rate	Weight/ 1000 pcs (kg)	Electrodes/ kg weldmetal	kg electrodes/ kg weldmetal
Diam. x length (mm)	[S]*			E(kJ)	H(kg/h)	B		1/N	
2.5 x 350	50-70	DC+	50	86	0.82	19.2	88	1.89	
3.2 x 350	60-90	DC+	51	135	1.3	31.3	53	1.72	
4.0 x 350	80-120	DC+	66	206	1.7	47.6	32	1.56	

*Stub end 35mm

WELDING PARAMETERS, OPTIMUM FILL PASSES

Diameter (mm)	Welding positions					
	PA/1G	PB/2F	PC/2G	PF/3Gup	PE/4G	PH/5Gup
2.5	60A	60A	60A	60A	60A	60A
3.2	95A	90A	90A	75A	75A	75A
4.0	125A	110A	125A	100A	100A	100A