CLEAROSTA E 316L

CLASSIFICATION

AWS A5.4	E316L-17	**A-Nr**	**Mat-Nr**
ISO 3581-A	E 19 12 3 L R 22	**F-Nr**	
		9606 FM	

TEMPERATURE RANGE

Pressurized parts :
Oxidation resistance :

GENERAL DESCRIPTION

Double coated stainless steel electrode for welding similar austenitic Cr-Mo-Ni steels
High operator appeal and control due to the more stable and focused arc transfer
Reduced welding fume (up to -40%) and lower hexavalent Cr content (up to -60%) of the fume contribute to an improved working environment in the workshop, for all workers
Suitable for root pass
Lower porosity, good striking and restriking
Excellent slag removal
Available in vacuum pack

WELDING POSITIONS (ISO/ASME)

PA/1G **PB/2F** **PC/2G** **PF/3Gu** **PE/4G** **PH/5Gu**

CURRENT TYPE

DC +

APPROVALS

CE	TÜV
+	+

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

C	Mn	Si	Cr	Ni	Mo	P	S	FN (acc.WRC 1992)
0.03	0.8	1.00	19.5	11.5	2.7	0.025	0.01	5-10

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Condition	Yield strength (N/mm^2)	Tensile strength (N/mm^2)	Elongation (%)	Impact ISO-V(J) +20°C
Typical values	AW	≥420	≥520	≥35	≥50

PACKAGING AND AVAILABLE SIZES

	Diameter (mm)	2.5	3.2	4.0	5.0
	Length (mm)	300	350	350	350
Vacuum pack	**Pieces / unit**	90	55	40	202.0
	Net weight/unit (kg)	1.7	2.0	2.1	1.7

Identification **Imprint:** **Tip Color:**

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EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	Mat. Nr
Extra low carbon (C <0.03%)		
	X2CrNiMo18-14-3	1.4435
Medium carbon (C >0.03%)		
	X4CrNiMo17-12-2	1.4401
Ti-, Nb stabilized		
	X6CrNiMoTi17-12-2	1.4571
	X10CrNiMoNb18-12	1.4583

CALCULATION DATA

Sizes Diam. x length (mm)	Current range (A)	Current type	Arc time (S)*	Energy E(kJ)	Dep. rate H(kg/h)	Weight/ 1000 pcs (kg)	Electrodes/ kg weldmetal B	kg electrodes/ kg weldmetal 1/N
			- per electrode at max. current -					
2.5 x 300	70 - 90	DC+	35	-	1.1	-	91	1.69
3.2 x 350	100 - 120	DC+	50	-	1.5	-	47	1.66
4.0 x 350	140 - 160	DC+	57	-	2.1	-	31	1.66
5.0 x 350	190 - 210	DC+	67	-	2.7	-	20	1.64

*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	80A	80A	75A	70A	75A	75A
3.2	110A	110A	100A	90A	100A	100A
4.0	150A	150A	130A			
5.0	200A	200A				