

Exaton 15W

Exaton 15W is a basic welding flux for submerged arc welding giving good slag removal and a fine bead appearance. Its relatively high basicity makes it suitable for joining of austenitic and duplex stainless steel when high impact strength is desired. Due to its low niobium content burn-off it can be used advantageously with stabilized wire electrodes.

Exaton 15W is a high performance welding flux in many joining applications in the chemical, petrochemical and oil&gas industry. It is particularly suited for Exaton range of duplex wire electrodes (e.g. 22.8.3.L/25.10.4.L) due to the highly neutral behavior, which ensures an optimal balanced microstructure.

Taking the benefit of its features (not limited to nice bead appearance and self slag release only), it can also be used in combination with NiCrMo-3 wire for several other applications (i.e. both joining and weld overlay).

Классификации	EN ISO 14174 : S A AF 2
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Сварочный ток	1200 A (Using 60x0.5 mm strip)
Тип шлака	Fluoride basic CaF ₂ -Al ₂ O ₃ -SiO ₂
Плотность	nom 1.0 Kg/l
Показатель щелочности	nom 1.9

Flux Consumption

Volts	kg Flux / kg Wire DC+	kg Flux / kg Wire AC
26 V	0.5 kg	-
30 V	0.6 kg	-
34 V	0.8 kg	-
38 V	1.0 kg	-

Dimensions	Amps	Travel Speed
4.0 mm	580 A	33 m/h

Classifications

Wire	SFA/AWS - EN ISO	AWS - As Welded
Exaton 19.12.3.L	A5.9:ER316L/ 14343-A:S 19 12 3 L	
Exaton 19.9.L	A5.9:ER308L/ 14343-A:S 19 9 L	
Exaton 19.9.Nb	A5.9:ER347/ 14343-A:S 19 9 Nb	A5.39: F90A15-ER347/347
Exaton 19.9.Nb	A5.9:ER347/ 14343-A:S 19 9 Nb	A5.39: F90A15-ER347/347
Exaton 19.9.Nb HF	A5.9:ER347/ 14343-A:S 19 9 Nb	
Exaton 20.25.5.LCu	A5.9:ER385/ 14343-A:S 20 25 5 Cu L	
Exaton 22.12.HT	14343-A:S 21 10 N	
Exaton 22.15.3.L	A5.9:ER(309LMo)/ 14343-A:S 23 12 2 L	
Exaton 22.15.3.L	A5.9:ER(309LMo)/ 14343-A:S 23 12 2 L	
Exaton 22.8.3.L	A5.9:ER2209/ 14343-A:S 22 9 3 N L	A5.39: F115A15-ER2209/2209
Exaton 22.8.3.L	A5.9:ER2209/ 14343-A:S 22 9 3 N L	A5.39: F115A15-ER2209/2209
Exaton 24.13.L	A5.9:ER309L/ 14343-A:S 23 12 L	
Exaton 24.13.LHF	A5.9:ER309L/ 14343-A:S 23 12 L	
Exaton 24.13.LNb	A5.9:ER"309LNb"/ 14343-A:S 23 12 Nb	
Exaton 25.10.4.L	A5.9:ER2594/ 14343-A:S 25 9 4 N L	
Exaton 25.22.2.LMn	A5.9:ER"310LMo"/ 14343-A:S 25 22 2 N L	
Exaton 27.31.4.LCu	A5.9:ER383/ 14343-A:S 27 31 4 Cu L	
Exaton Ni56	A5.14:ERNiCrMo-4/ 18274:S Ni 6276 (NiCr15Mo16Fe6W4)	
Exaton Ni60 SAW	A5.14:ERNiCrMo-3/ 18274:S Ni 6625 (NiCr22Mo9Nb)	

Approvals

Combined with Wire	BV	VdTÜV	DNV-GL
Exaton 19.12.3.L	-	•	-
Exaton 19.9.L	-	•	-
Exaton 22.8.3.L	•	•	•
Exaton 25.10.4.L	•	•	•

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Typical Mechanical Properties					
Combined with Wire	Condition	Yield Strength	Tensile Strength	Elongation	Charpy V-Notch
Exaton 19.12.3.L	As Welded hr	390 MPa	530 MPa	41 %	100 J @ 20°C 85 J @ -40°C 40 J @ -196°C
Exaton 19.9.L	As Welded hr	390 MPa	560 MPa	35 %	90 J @ 20°C 35 J @ -196°C
Exaton 19.9.Nb	As Welded hr	470 MPa	640 MPa	39 %	95 J @ 20°C 40 J @ -110°C 25 J @ -196°C
Exaton 19.9.Nb	As Welded hr	470 MPa	650 MPa	32 %	80 J @ 20°C
Exaton 19.9.Nb HF	As Welded DC+ hr	440 MPa	610 MPa	32 %	75 J @ 20°C
Exaton 20.25.5.LCu	As Welded hr	345 MPa	550 MPa	40 %	125 J @ 20°C 100 J @ -196°C
Exaton 22.12.HT	As Welded hr	400 MPa	580 MPa	35 %	120 J @ 20°C
Exaton 22.15.3.L	As Welded hr	400 MPa	600 MPa	40 %	140 J @ 20°C
Exaton 22.8.3.L	As Welded hr	650 MPa	790 MPa	33 %	115 J @ 20°C 85 J @ -40°C
Exaton 22.8.3.L	As Welded hr	650 MPa	810 MPa	29 %	85 J @ -40°C 65 J @ -60°C 29 J @ -110°C
Exaton 24.13.L	As Welded hr	400 MPa	600 MPa	40 %	140 J @ 20°C
Exaton 24.13.LHF	As Welded hr	410 MPa	600 MPa	40 %	140 J @ 20°C
Exaton 24.13.LNb	As Welded hr	400 MPa	600 MPa	35 %	90 J @ 20°C
Exaton 25.10.4.L	As Welded DC+ hr	690 MPa	880 MPa	25 %	90 J @ 20°C 60 J @ -40°C
Exaton 25.22.2.LMn	As Welded DC+ hr	335 MPa	575 MPa	42 %	120 J @ 20°C
Exaton 27.31.4.LCu	As Welded hr	360 MPa	540 MPa	35 %	165 J @ 20°C
Exaton Ni56	As Welded HI 1.6-1.8 kJ/mm DC+ hr	450 MPa	700 MPa	45 %	100 J @ -60°C 100 J @ -60°C 80 J @ -196°C 80 J @ -196°C
Exaton Ni60 SAW	As Welded hr	445 MPa	715 MPa	45 %	93 J @ -60°C 82 J @ -196°C

Хим. состав наплавленного металла

C	Mn	Si	S	P	Ni	Cr	Mo	V	Cu
Exaton 19.12.3.L									
0.01	1.5	0.5	-	-	12.3	18.1	2.6	-	-
Exaton 19.9.L									
0.02	1.2	0.6	0.012	0.025	10	19.5	0.15	-	0.1
Exaton 19.9.Nb Current: DC+, 400A, 28V, welding speed 48cm/min									
0.03	1.18	0.5	0.011	0.018	9.3	18.83	0.032	-	0.097
Exaton 19.9.Nb HF									
0.04	1.4	0.66	0.01	0.02	9.3	19.4	0.12	-	0.11
Exaton 20.25.5.LCu									
0.01	1.4	0.5	-	-	25	19.6	4.5	-	-
Exaton 22.8.3.L Current: DC+, 400A, 28V, 45cm/min									
0.01	1.2	0.004	-	0.018	8.36	22.6	2.95	-	0.12
Exaton 24.13.LNb									
<=0.020	1.2	0.7	<=0.015	<=0.025	12	23.5	-	-	-
Exaton 25.10.4.L									
<=0.020	0.3	0.6	<=0.015	<=0.020	9.6	24.5	4	-	-
Exaton 25.22.2.LMn Current: DC+, 420A, 27V									
0.02	4.0	0.1	-	-	22.0	24.5	2.1	-	0.1
Exaton 27.31.4.LCu									
0.01	1.4	0.4	0.003	0.01	31.3	26.3	3.5	-	1.0
Exaton Ni56 DC+									
0.01	0.4	0.20	-	-	Bal	15.1	15.6	0.1	-
Exaton Ni60 SAW Current: DC+, 400A, 28V, travel speed: 25 m/h.									
0.02	0.2	0.4	0.005	0.015	-	22	9	-	0.1

N	Nb	Co	Fe	Nb+Ta	W	PRE	FN deLong	FN WRC	FN WRC-92
Exaton 19.12.3.L									
-	-	-	-	-	-	-	-	-	-
Exaton 19.9.L									

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N	Nb	Co	Fe	Nb+Ta	W	PRE	FN deLong	FN WRC	FN WRC-92
0.05	-	0.1	-	-	-	-	-	-	6
Exaton 19.9.Nb Current: DC+, 400A, 28V, welding speed 48cm/min									
0.063	0.56	0.14	-	0.6	-	-	6	6	-
Exaton 19.9.Nb HF									
0.04	0.7	-	-	0.7	-	-	13	12	-
Exaton 20.25.5.LCu									
-	-	-	-	-	-	-	-	-	-
Exaton 22.8.3.L Current: DC+, 400A, 28V, 45cm/min									
0.135	<0.003	-	-	-	-	34	-	-	52
Exaton 24.13.LNb									
-	0.7	-	-	-	-	-	-	-	-
Exaton 25.10.4.L									
0.21	-	-	-	-	-	-	-	-	-
Exaton 25.22.2.LMn Current: DC+, 420A, 27V									
0.12	-	-	-	-	-	-	-	-	-
Exaton 27.31.4.LCu									
0.06	-	-	-	-	-	-	-	-	-
Exaton Ni56 DC+									
-	-	0.1	6.8	-	3.6	-	-	-	-
Exaton Ni60 SAW Current: DC+, 400A, 28V, travel speed: 25 m/h.									
-	-	-	5	3	-	-	-	-	-