

OP 121TTW

TOP FEATURES

- Highly basic flux for multiple passes applications
- Very low impurity level in the weld deposit
- Recommended with high strength wire grades and post weld heat treatment conditions
- Very good CTOD properties of the weld metal

CLASSIFICATION

Flux	EN ISO 14174: SA FB 1 55 AC H5	
Flux/wire	AWS A5.17	AWS A5.23
OE-S2	F7A6/F6P8-EM12K	
OE-SD3	F7A8/F7P8-EH12K	
OE-S2Mo		F8A4/F8P4-EA2-A2
OE-S2 Ni2		F7A10/F7P10-ENi2-Ni2
OE-S2 Ni3		F8A15/F7P15-ENi3-Ni3
OE-SD3 1Ni 1/4Mo		F8A10/F8P10-ENi5-Ni5
OE-SD3 1Ni 1/2Mo		F9A8/F9P8-EF3-F3
OE-SD3 2NiCrMo		F11A8/F11P5-EG-G
OE-S2 CrMo1		F8P4-EB2R-B2
OE-S1 CrMo2		F8P2-EB3R-B3

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

Wire grade	C	Mn	Si	Cr	Ni	Mo
OE-S2	0.07	0.9	0.2			
OE-SD3	0.07	1.6	0.3			
OE-S2Mo	0.07	0.9	0.2			0.5
OE-S2 Ni2	0.07	0.9	0.3		2.3	
OE-S2 Ni3	0.06	0.9	0.2		3.3	0.15
OE-SD3 1Ni 1/4Mo	0.07	1.3	0.3		0.9	0.2
OE-SD3 1Ni 1/2Mo	0.07	1.5	0.3		0.95	0.5
OE-SD3 2NiCrMo	0.07	1.4	0.4	0.6	2.2	0.5
OE-S2 CrMo1	0.07	0.9	0.3	1.1		0.5
OE-S1 CrMo2	0.08	0.6	0.3	2.2		1

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Wire grade	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)				
					-20°C	-40°C	-60°C	-80°C	-101°C
OE-S2	AW	≥360	450-550	≥25	≥100	≥50			
OE-SD3	AW	≥400	480-580	≥25	≥140	≥100	≥70		
OE-S2Mo	AW	≥470	550-680	≥24	≥100	≥50			
OE-S2 Ni2	AW	≥450	550-600	≥24	≥120	≥100	≥70	≥50	
OE-S2 Ni2	PWHT 600°C/2h	≥430	500-600	≥26	≥140	≥130	≥100	≥80	
OE-S2 Ni3	AW	≥480	560-660	≥25	≥140	≥130	≥100	≥80	≥40
OE-S2 Ni3	PWHT 600°C/2h	≥430	500-610	≥26	≥140	≥120	≥90	≥70	≥30
OE-SD3 1Ni 1/4Mo	AW	≥500	560-680	≥22		≥145	≥70		
OE-SD3 1Ni 1/4Mo	PWHT 600°C/2h	≥470	550-660	≥24		≥160	≥70		
OE-SD3 1Ni 1/2Mo	AW	≥550	650-750	≥20	≥90	≥70	≥47		
OE-SD3 1Ni 1/2Mo	PWHT 600°C/2h	≥540	630-730	≥22	≥120	≥90	≥70		
OE-SD3 2NiCrMo	AW	≥720	760-900	≥18			≥69		
OE-SD3 2NiCrMo	PWHT 580°C/2h	≥600	700-850	≥19		≥47			
OE-S2 CrMo1	PWHT 680°C/2h	≥380	530-630	≥24	≥160				
OE-S2 CrMo1	PWHT 920°C/air+710°C	≥310	430-530	≥30	≥160				
OE-S1 CrMo2	720°Cx8h	≥450	550-650	≥22	≥80				
OE-S1 CrMo2	PWHT 940°C/air+740°C	≥400	520-620	≥22	≥80				

*AW = As welded; PWHT = Post weld heat treatment

FLUX CHARACTERISTICS

Current type	AC; DC+
Basicity (Boniszewski)	3.1
Grain size (EN ISO 14174)	2-20
Redrying	350°C x 2-4h

PACKAGING AND AVAILABLE SIZES

Packaging	Weight (kg)	Item number
DRY BAG	25.0	W000280051

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application

Safety Data Sheets (SDS) are available here:



Subject to Change – The information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.eu for any updated information.