OP 121TT

TOP FEATURES

- Fully basic agglomerated submerged-arc welding flux for multiple pass welding
- Consistent low temperature impact and CTOD toughness
- Suitable for single and multiple arc systems

TYPICAL APPLICATIONS

- Offshore
- Pressure vessels

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-SD3Mo		F8A6/F8P6-EA4-A4
OE-S2 Ni2		F7A10/F7P10-ENi2-Ni2
OE-SD3 1Ni 1/4Mo		F8A10/F8P10-ENi5-Ni5
OE-SD3 1Ni 1/2Mo		F9A8/F9P8-EF3-F3
OE-SD3 2 NiCrMo		F11A8/F11P5-EG-G
OE-S2 CrMo1		F8P4-EB2R-B2
OE-CROMO S225		F8P2-EB3R-B3
OE-TIBOR22		F7A8-EG-G
OE-TIBOR33		F8A6-EA2TiB-G

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

Wire grade	C	Mn	Si	Cr	Ni	Mo	Ti	B
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-SD3Mo	0.07	1.3	0.2	-	-	0.5	-	-
OE-S2 Ni2	0.06	0.9	0.2	-	2.1	-	-	-
OE-S2 Ni3	0.06	0.9	0.2	-	3.3	-	-	-
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-CROMO S225	0.08	0.6	0.3	2.2	-	1	-	-
OE-TIBOR22	0.06	1	0.1	-	-	0.3	0.013	0.0010
OE-TIBOR33	0.07	1.2	0.3	-	-	0.5	0.15	0.012

- = not specified

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Wire grade	Condition	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J)		
					0°C	-40°C	-60°C
OE-S2	AW	≥405	480-550	≥28	≥160	≥50	-
OE-SD3	AW	≥460	530-630	≥25	≥180	≥100	≥70
OE-SD3	PWHT 600°C/2h	≥400	490-590	≥27	≥200	≥120	≥90
OE-S2Mo	AW	≥470	550-680	≥24	≥120	≥50	-
OE-SD3Mo	AW	≥550	610-670	≥29	-	≥110	≥80
OE-SD3Mo	PWHT 620°C/1h	≥520	600-660	≥27	-	≥130	≥60
OE-S2 Ni2	AW	≥420	500-600	≥24	≥140	≥100	≥70
OE-S2 Ni2	PWHT 600°C/2h	≥380	470-550	≥26	≥160	≥130	≥100
OE-S2 Ni3	AW	≥480	560-660	≥25	≥160	≥130	≥100
OE-SD3 1Ni 1/2Mo	AW	≥550	650-750	≥20	≥120	≥70	≥47
OE-SD3 1Ni 1/2Mo	PWHT 600°C/2h	≥540	630-730	≥22	≥140	≥90	≥70
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 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	≥180	-	-
OE-S2 CrMo1	PWHT 920°C/air+710°C	≥310	430-530	≥30	≥200	-	-
OE-CROMO S225	PWHT 720°C/8h	≥450	550-650	≥22	≥100	-	-
OE-CROMO S225	PWHT 940°C/air+740°C	≥400	520-620	≥22	≥90	-	-
OE-TIBOR22	AW	≥430	500-650	≥20	-	-	≥50
OE-TIBOR33	AW	≥530	580-700	≥20	-	≥50	-

AW = As welded, PWHT = Post Weld Heat Treatment

-=not specified

FLUX CHARACTERISTICS

Current type	AC; DC+
Basicity (Boniszewski)	2.8
Grain size (EN ISO 14174)	2-20
Redrying	300-350°C x min. 2h

AVAILABLE SIZES AND PACKAGING INFORMATION

Packaging	Weight (kg)	Item number
DRY BAG	25.0	W000280042
	1000.0	W000412642

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.