FLUXOCORD 31HD

OERLIKON

SAW Cored Wires
C-Mn and low-alloy steels

Fluxocord 31HD is a seamless copper coated basic flux cored wire for submerged arc welding. The deposition rate is increased by ~30% compared to a solid wire of equivalent diameter. Fluxocord 31HD is a highly cost effective route to high productivity welding. Used for the welding of structural and fine grain steels in combination with the following fluxes: OP 121TT for thicker section tough joints, OP 139 for medium thickness sections and with OP 181 for high speed fillet welding.

Flux	Classification	
OP 181	AWS	A5.17: F7AP4-ECG
OP 139	AWS	A5.17: F7AP8-ECG
OP 121TT	AWS	A5.17: F7AP8-EC1
OP 121TT	EN	756: S 35 6 FB T3

Flux	Approvals	Grades
OP 181	TÜV	
OP 139	TÜV	
OP 121TT	TÜV	

see Appendix, Classification Society Approvals, for details pag. 521

Typical Applications

Flux	Materials
OP 121TT	ASME: A516 all gredes EN: S(P)235 - S(P)420

Analysis of all-weld metal (Typical values in %)

Flux	C	Mn	Si	Cr	Ni	Mo	Nb	N	Cu
OP 181	0.06	1.90	0.90	-	-	-	-	-	-
OP 139	0.06	1.70	0.70	-	-	-	-	-	-
OP 121TT	0.06	1.70	0.40	-	-	-	-	-	-

All-weld metal Mechanical Properties

Flux	Heat Treatment	Yield Strength N/mm^2	Tensile Strength N/mm^2	Elongation A5 (%)
OP 181	As Welded	≥ 420	500 - 640	≥ 20
OP 139	As Welded	≥ 420	500 - 640	≥ 20
OP 121TT	PWHT 620°C x 2h	≥ 355	500 - 640	≥ 20
OP 121TT	As Welded	≥ 420	500 - 640	≥ 20

All-weld metal Mechanical Properties - Cv

Flux	Heat Treatment	Charpy V Notch Impact Toughness (J)							
		+20	0	- 20	- 30	- 40	- 50	- 60	- 196
OP 121TT	As Welded	-	-	-	-	100	-	80	-
OP 139	As Welded	-	-	-	-	90	-	60	-
OP 181	As Welded	-	-	80	-	27	-	-	-
OP 121TT	PWHT	-	-	-	-	100	-	80	-

Current condition
DC+; AC

Packaging data: K415 kg. 25

Diameters	2,4	3,2	4,0	5,0		