

OK Flux 429

OK Flux 429 is a neutral, bonded flux intended for butt and fillet welding of carbon and low alloy steel plate. It combines good as welded and stress relieved mechanical properties with excellent performance. Its slag is generally self peeling, even in tight, narrow groove butt welds. It provides moderate tolerance of rust and mill scale. OK Flux 429 is used in offshore oil rig, bridge, ship, pressure vessel, and structural fabrication. It will operate with DC and AC, single and multiwire systems at currents up to 1000 amps.

Classifications	AWS A5.23 : F8P4-ENi4-Ni4 AWS A5.23 : F9A4-ENi14-Ni4 AWS A5.23 : F9A4-ENi1K-Ni1 AWS A5.23 : F8P0-EA2-A3 AWS A5.23 : F8A2-EA2-A3 AWS A5.23 : F8P2-EA1-A2 AWS A5.23 : F8A2-EA1-A2 AWS A5.17 : F7A4-EH12K AWS A5.17 : F7P4-EM14K AWS A5.17 : F7A2-EM13K AWS A5.17 : F6P4-EM12K AWS A5.17 : F7A2-EM12K AWS A5.17 : F7A2-EM14K ASME SFA 5.23 ASME SFA 5.17
Approvals	CWB AWS A5.28 F49A4-ENi1K-Ni1-H8 CWB CSA W48 F49A3-EM12K (H8)
Industry	Bridge Construction Industrial and General Fabrication Mobile Equipment Pipeline Power Generation Pressure Vessels Process Ship and Offshore Yards Ship/Barge Building Structural Steel Fabrication

Approvals are based on factory location. Please contact ESAB for more information.

Typical Mechanical Properties

Combined with Wire	Condition	Yield Strength	Tensile Strength	Elongation	Charpy V-Notch
Spoolarc 29S	As Welded ()	460 MPa (67 ksi)	570 MPa (83 ksi)	27 %	42 J @ -29°C (38 ft-lb @ -20°F)
Spoolarc 53	As Welded ()	490 MPa (71 ksi)	585 MPa (85 ksi)	28 %	52 J @ -40°C (30 ft-lb @ -40°F)
Spoolarc 71	As Welded ()	475 MPa (69 ksi)	565 MPa (82 ksi)	30 %	60 J @ -40°C (44 ft-lb @ -40°F)
Spoolarc 71	Stress Relieved 1 hr @ 621C (1150F) ()	430 MPa (63 ksi)	525 MPa (76 ksi)	32 %	60 J @ -29°C (44 ft-lb @ -20°F)
Spoolarc 75	As Welded ()	505 MPa (73 ksi)	595 MPa (86 ksi)	28 %	54 J @ -40°C (40 ft-lb @ -40°F)
Spoolarc 81	As Welded ()	455 MPa (66 ksi)	545 MPa (79 ksi)	26 %	65 J @ -29°C (48 ft-lb @ -20°F)
Spoolarc 81	Stress Relieved 1 hr @ 621C (1150F) ()	415 MPa (60 ksi)	515 MPa (75 ksi)	30 %	68 J @ -40°C (50 ft-lb @ -40°F)
Spoolarc ENi4	As Welded ()	565 MPa (82 ksi)	640 MPa (93 ksi)	25 %	60 J @ -40°C (44 ft-lb @ -40°F)
Spoolarc ENi4	Stress Relieved 1 hr @ 621C (1150F) ()	530 MPa (77 ksi)	615 MPa (89 ksi)	26 %	33 J @ -40°C (24 ft-lb @ -40°F)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Mo
Spoolarc 29S						
0.07	1.70	0.70	0.012	0.020	-	-
Spoolarc 53						
0.06	1.80	0.50	0.010	0.026	-	-
Spoolarc 71						
0.06	1.58	0.58	0.009	0.018	-	-
Spoolarc 75						
0.05	1.50	0.60	0.012	0.018	0.80	-
Spoolarc 81						
0.06	1.40	0.45	0.015	0.020	-	-
Spoolarc ENi4						
0.06	1.30	0.40	0.009	0.021	1.79	0.15



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