

SAW (submerged arc welding) wires for mild and low alloyed steel

UP-100 CrMo 1 (S2CrMo1)				
Classification DIN EN ISO			Classification AWS	
24598-A SCrMo1			A5.23 EB2R	
Approvals			Material No.	
TÜV 03274.06, CE, DB 52.045.12, GL			1.7346	
Characteristics and application				
Submerged arc welding wire for high temperature creep resistant 1.25%Cr0.5%Mo ferritic steel. These steels are used for creep resisting applications up to ~550°C. Typical applications in power generation plant include steam piping, turbines and boilers; the alloy also finds applications in the chemical and petro-chemical industries. The wire has low levels of tramp elements (eg. Sn, As, Sb and P) providing a low Bruscato Factor (X< 10 ppm) for temper embrittlement resistant applications.				
Base materials				
For matching 1.25%Cr0.5%Mo creep resisting ferritic steels. 13CrMo 4-5, 16CrMo 4-4, G-17CrMo 5-5, 24CrMo5, 25CrMo4 ASTM: A182 grades F11/F12, A199/A200 grade T11, A217 grades WC6/WC11, A234 grades WP11/WP12, A335 grades P11/P12, A387 grades 11/12				
Typical analysis in %				
C	Si	Mn	Cr	Mo
0,10	0,17	0,95	1,20	0,52
Typical heat treatment				
Preheat temperature: 200°C Interpass temperature: max. 300°C PWHT: 620-690°C				
Mechanical properties of the pure weld metal				
Yield strength in Mpa	Tensile strength in Mpa	Elongation in %	Charpy-V-Value (ISO-V) in J	
≥470	≥550	4d/5d: ≥20	-	