

SA 2594

CATEGORY SAW Submerged arc

TYPE SAW wire for welding the so called Super Duplex types of stainless steels.

APPLICATIONS Welding austenitic-ferritic, stainless alloys of the 25% Cr, 7% Ni, 4% Mo, low C types. Welding wrought, forged or cast super duplex stainless steels for service in the as-welded Condition. Heterogeneous welding between super duplex stainless steels and dissimilar welds between other stainless and mild or low alloyed steels. The alloy is widely used in applications in which corrosion resistance is of the utmost importance. The pulp & paper industry, offshore and gas industry are areas of interest.

PROPERTIES SA 2594 has high intergranular-corrosion, pitting and stress-corrosion resistance with exceptional mechanical strength properties when welded with our high basic agglomerated flux [FL 838](#).

CLASSIFICATION

AWS	A 5.9: ER 25 9 4
EN ISO	14343-A: S 25 9 4 N L
DIN: W.Nr.	1.4410
DIN	8556: UP X2CrNiMo 25 9 4

SUITABLE FOR UNS S32550 :UR 52 N, Ferralium 255, UNS S32520 :UR 52 N+, UNS S32750 :SAF 2507, UR 47 N+, UNS S32760 :ZERON 100, UNS 32760, UR 76 N, SM22Cr, SAF 2507, ASTM S32760 (ZERON 100), S32550 and S31260.,
It can also be used for welding duplex type 2205, 1.4460, 1.4462, 1.4463, 1.4515, 1.4517, 1.4507 URANUS 52N, SAF 25.07, GX 3 CrNiMoCuN 26-6-3, (1.4515), GX 3 CrNiMoCuN 26-6-3-3, (1.4517), 25% Cr Super Duplex steels SAF 25/07, S32750 1.4410 - 25Cr-7Ni-4Mo-0.28N SAF2507, NAS74N, S32760 1.4501 - 25Cr-7Ni-3.8Mo-0.7Cu-0.7W-0.25N, S32506 - SUS329J4L 25Cr-7Ni-3Mo-0.15N-0.2W NAS64 1.4507, S31803, S32205,

APPROVALS CE approved

WELDING POSITIONS:



TYPICAL ALL WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	Mo	W	N
0.025	1,2	0,6	25	9	3.7	0,4	0,2

FNW: Ferrite Number (FN) by WRC1992 Diagram, >40

MECHANICAL PROPERTIES

Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				-20°C	-40°C	-60°C	
AW	>680	>870	>25	65	55		

AW: as welded

WELDING PARAMETERS / PACKING

Welding Parameters			Packing		
D (mm)	Voltage (V)	Current DC+ (A)	spool type	kg spool	kg / pallet
1,6	27-30	200-300	K-415	25	
2.0	28-31	250-350	K-415	25	
2.4	29-33	350-450	K-415	25	

REDRYING TEMPERATURE not required