

## 2594 (Super Duplex)

**CATEGORY** GMAW-GTAW Solid wires

**TYPE** Mag filler metal 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** 2594 has high intergranular-corrosion, pitting and stress-corrosion resistance with exceptional mechanical strength properties.

**CLASSIFICATION**

AWS	A 5.9: ER 25 9 4
EN ISO	14343-A: G 25 9 4 N L
DIN: W.Nr.	1.4410
DIN	8556: SG 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 <sub>p0,2</sub> (N/mm <sup>2</sup> )	R <sub>m</sub> (N/mm <sup>2</sup> )	A <sub>5</sub> (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				-20°C	-40°C	-60°C	
AW	700	900	27	65	55		

AW: as welded

**WELDING PARAMETERS / PACKING**

Welding Parameters			Packing		
D (mm)	Voltage (V)	Current DC+ (A)	spool type	kg spool	kg / pallet
0,8	12-24	55-160	S-300	15	1080
1,0	15-28	80-240	S-300	15	1080
1,2	15-29	100-290	S-300	15	1080

**REDRYING TEMPERATURE** not required

**GAS ACC. EN ISO 14175:** M12, M13