

AA SD 100 (metal core)

CATEGORY	FCAW Flux-Cored																								
TYPE	Metal cored super duplex stainless steel welding wire with high mechanical properties for gas shielded arc welding.																								
APPLICATIONS	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.																								
PROPERTIES	Smooth drop transfer and stable arc with a deposit off 25% chromium - 9% nickel - 4% molybdenum - copper - tungsten - nitrogen and low carbon. Excellent productivity, improved weldability, better wetting properties compared to solid wires. Excellent weld metal quality and X-ray soundness. Nitrogen free classical shielding gases are used for welding																								
CLASSIFICATION	AWS	A 5.22:																							
	EN ISO	12073: T Z 25 9 4 N LM M1																							
	DIN: W.Nr.	1.4410																							
SUITABLE FOR	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. Examples: 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:																									
ALL-WELD METAL ANALYSES %	<table border="1"> <thead> <tr> <th>C</th> <th>Mn</th> <th>Si</th> <th>Cr</th> <th>Ni</th> <th>Mo</th> <th>Cu</th> <th>W</th> <th>N</th> <th>S</th> <th>P</th> </tr> </thead> <tbody> <tr> <td>0.025</td> <td>1.40</td> <td>0.60</td> <td>25.9</td> <td>9.00</td> <td>3.80</td> <td>0.60</td> <td>0.60</td> <td>0.24</td> <td>0.008</td> <td>0.015</td> </tr> </tbody> </table>		C	Mn	Si	Cr	Ni	Mo	Cu	W	N	S	P	0.025	1.40	0.60	25.9	9.00	3.80	0.60	0.60	0.24	0.008	0.015	
C	Mn	Si	Cr	Ni	Mo	Cu	W	N	S	P															
0.025	1.40	0.60	25.9	9.00	3.80	0.60	0.60	0.24	0.008	0.015															
MECHANICAL PROPERTIES	<table border="1"> <thead> <tr> <th rowspan="2">Heat Treatment</th> <th rowspan="2">R_{p0.2} (N/mm²)</th> <th rowspan="2">R_m (N/mm²)</th> <th rowspan="2">A₅ (%)</th> <th colspan="3">Impact Energy (J) ISO-V</th> <th rowspan="2">Hardness HRc / HV</th> </tr> <tr> <th>+20°C</th> <th>-50°C</th> <th>-60°C</th> </tr> </thead> <tbody> <tr> <td>AW</td> <td>790</td> <td>920</td> <td>22</td> <td>-</td> <td>40 J</td> <td></td> <td></td> </tr> </tbody> </table>		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	-50°C	-60°C	AW	790	920	22	-	40 J						
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	-50°C	-60°C																				
AW	790	920	22	-	40 J																				
AW: as welded																									
WELDING PARAMETERS / PACKING	<table border="1"> <thead> <tr> <th rowspan="2">D (mm)</th> <th colspan="2">Welding Parameters</th> <th colspan="3">Packing</th> </tr> <tr> <th>Voltage (V)</th> <th>Current (A)</th> <th>Spools</th> <th>kg/spool</th> <th>kg/pallet</th> </tr> </thead> <tbody> <tr> <td>1.2</td> <td></td> <td></td> <td>S-300</td> <td>15</td> <td>1080</td> </tr> <tr> <td>1.6</td> <td></td> <td></td> <td>S-300</td> <td>15</td> <td>1080</td> </tr> </tbody> </table>		D (mm)	Welding Parameters		Packing			Voltage (V)	Current (A)	Spools	kg/spool	kg/pallet	1.2			S-300	15	1080	1.6			S-300	15	1080
D (mm)	Welding Parameters			Packing																					
	Voltage (V)	Current (A)	Spools	kg/spool	kg/pallet																				
1.2			S-300	15	1080																				
1.6			S-300	15	1080																				
REDRYING TEMPERATURE	150C / 24hr																								
NOTE	Also available as Rutile version (AA 2594)																								