Welding Consumable Superon

OERLION Products

Product Name	Classification	Mechanical Properties or Weld Metal (Typical)						
	AWS /SFA	Heat Treatment	Yield Strength	Tensile Strength N/nm^2	Elongation A5 (%)	Impact Joules	Current Condition	Unique Future
Premium Series E6012								
CITIOBEST	A5 :1 : 6012	As welded	≥ 350	410-540	≥ 22	≥ 60 at 27º C	AC : DC -	Good gap bridging ,Suitable for poor fit application
Premium Series E6013								
OVERCORD	A5 :1 : 6013	As welded	≥ 380	470-540	≥ 24	≥ 60 at 0º C	AC : DC -	Excellent for Tack welding ,Excellent gap bridging
OVERCORD S	A5 :1 : 6013	As welded	≥ 400	470-540	≥ 24	≥ 60 at 0º C	AC : DC -	Superior Slag detachability Highest Impact notch toughness in its class (80J at 0 º C typical)
OVERCORD E	A5 :1 : 6013	As welded	400	510	25	≥ 60 at 0º C	AC : DC -	Superior weld ability, Smooth weld bead self-peeling slag radiographic quality weld.
FINCORD M	A5 :1 : 6013	As welded	400	500	24	70 at RT	AC : DC -	Excellent weld ability self-peeling slag finely rippled flat weld bead
FINCORD M	A5 :1 : 6013	As welded	≥420	480- 540	≥24	≥ 60 at 0º C	AC : DC -	Ultra smooth weld ability – best in class, 100 % recovery.
Premium Series low Hydrogen E7016 .E7018 & E7018-1								
UNIVERS	A5 :1 : 7016	As welded	≥410	510-640	26	≥ 70 at -30º C	DC + AC	Self-peeling slag. Excellent mechanical properties and weld ability.
SUPERCITO (E)	A5 :1 : 7018	As welded	≥450	540-600	≥28	≥ 70 at -30º C	DC + AC	Self-peeling slag. Superbly clean weld puddles
SUPERCITO	A5 :1 : 7018	As welded	≥450	550-620	≥28	≥ 120 at -30º C	DC + AC	Soft excellence weld ability .Best in class mechanical properties
SUPERCITO 7018 (S)	A5 :1 : 7018-1	As welded	≥450	550-620	≥28	≥ 60 at 0º C	DC + AC	Ultra smooth finally rippled weld beads .Less than 3.0 ml diffusible hydrogen level

Welding Consumable Superon

Product Name	Classification	Mechanical Properties or Weld Metal (Typical)						
	AWS /SFA	Heat Treatment	Yield Strength	Tensile Strength N/nm^2	Elongation A5 (%)	Impact Joules	Current Condition	Unique Future
Premium Series Stainless Steel								
SUPRANOX 308	A5.4 :E308-16	As welded	≥ 350	≥550	≥ 35	≥ 80 at +20º C	DC+, AC	Best in class recovery .Vacuum packed
SUPRANOX 308 L	A5.4 :E308L-16	As welded	≥ 350	≥550	≥ 40	≥ 80 at +20º C	DC+, AC	Ultra Low carbon continent .Superior ferrite control .Vacuum Packed
SUPRANOX 316	A5.4 :E316-16	As welded	≥ 350	≥550	≥35	≥ 47 at -20º C	DC+, AC	Spatter less smooth welability .Excellent slag detachability .vacuum packed.
SUPRANOX 316- L	A5.4 :E316L-16	As welded	≥ 350	≥550	≥35	≥ 47 at -20º C	DC+, AC	Superior mechanical properties. Superior corrosion resistance. Vacuum packed.
SUPRANOX 309	A5.4 :E309-16	As welded	≥ 350	≥550	≥30	≥ 50 at +20º C	DC+, AC	Smooth welability with self-removing slag. Highly recommended for welding dissimilar steels .Vacuum packed.
SUPRANOX 309- L	A5.4 :E309L-16	As welded			≥35	≥ 47 at +20º C	DC+, AC	Extra low carbon content .excellent intergranular corrosion resistance .Packed in vacpac system
Premium Series Hard facing						**Hardness**		
CITORAIL II	DIN 855: E1 UM -400					36-39 HRC	DC + AC	Deposits are easy to machine with tough weldments .Heavy thickness will not crack.
CITORAIL III	DIN 855: E6 UM -60 P					57-61 HRC	DC + AC	Spray transfer for smooth uniform overlays.Excellant running performance.

Welding Consumable Superon

CITORAIL III LH	DIN 855: E6 UM -60 P					57-62 HRC	DC + AC	Highest hardness in class .Multilayer deposits will free of cracks.
CITORAIL V	DIN 855: E6 UM -60 P					56-60 HRC	DC + AC	Excellence edge retention .Best in class hardness.

Superon optimal series Stainless steel Welding electrodes

Product Name	Classification	Mechanical Properties or Weld Metal (Typical)					
	AWS /SFA	Yield Strength	Tensile Strength N/nm^2	Elongation A5 (%)	Impact Joules	Welding Condition	Unique Future
SUPER OPTIMAL 308L	A5.4 :E308L-16	-	610	>40	60 at +20º C	DC+, AC	LMA Type coating superior welability without spatter ,self-peeling slag ,best in class mechanical properties
SUPER OPTIMAL 309L	A5.4 :E309L-16	-	600	>38	60 at +20º C	DC+, AC	Excellent welability self-peeling slag Best in class mechanical properties best for joining dissimilar steels.
SUPER OPTIMAL 309 MOL	A5.4 :E316-16	-	600	>35	>65 at + 20º C	DC+, AC	Extra Low carbon Superior welability. Nice accepts of bead .High level of delta ferrite excellent crack resistant.
SUPER OPTIMAL 316L	A5.4 :E316L-16	-	>590	>35	>60 at -20º C	DC+	Super welability finely rippled bead, self-peeling slag best in class corrosion resistant. Best in class mechanical properties
SUPER OPTIMAL *308 L -15*	A5.4 :E308L-15	-	590	40	80 at -20º C	DC+	Basic coated superior welability self-peeling slag controlled fluidity best suitable for pipe welding .Impact passes at 196 º C also
SUPER OPTIMAL 309L-15	A5.4 :E309L-15	-	610	37	70 at +20º C	DC(+)	Basic type self-peeling slag controlled fluidity best suitable for all position welding
SUPER OPTIMAL 316L-15	A5.4 :E316L-15	-	570	40	80 at -20º C	DC(+)	Basic coated superior welability self-peeling slag controlled fluidity best suitable for pipe welding .Impact passes at 196 º C also
SUPER OPTIMAL 347L-15	A5.4 :E347L-15	-	590	38	90at +20º C	DC(+)	Basic coated superior welability ,superior welability self-peeling slag superior intergranular corrosion resistant.

Welding Consumable Superon

C-MN, LOW ALLOY AND CHROME – MOLY STEEL WELDING ELECTRODE

Product Name	Classification	Mechanical Properties or Weld Metal (Typical)					
	AWS /SFA	Yield Strength	Tensile Strength N/nm^2	Elongation A5 (%)	Impact Joules	Current Condition	Unique Future
Optimal Series Stainless steel welding Electrodes							
SUPER OPTIMAL 6013	A5.1 E6013	≥ 400	470-540	≥ 24	≥ 70 at 0º C	DC+, AC	Superior slag detachability .Highest impact motch toughness in its class (90J at 0^0 typical
SUPER OPTIMAL 7016	A5.1 :E7016	≥ 410	510-640	≥ 26	≥ 70 at -30º C	DC+, AC	Self-peeling slag .Excellent mechanical properties and welability
SUPER OPTIMAL 7018	A5.1 :E7018	≥ 450	550-620	≥28	≥ 90 at -30º C	DC+, AC	Excellent welability .Best in class mechanical properties .less than 4.0 ml diffusible hydrogen level
SUPER OPTIMAL 7018 S	A5.1:E7018 - 1	≥ 450	550-620	≥28	≥ 90 at -45º C	DC+, AC	Ultra smooth finely ripped weld beads less than 3.00ml diffusible hydrogen level.
SU SUPER OPTIMAL 7018 A1	A5.5 :E7018-A1	≥ 450	≥550	≥22	≥60 at +20º C	DC+, AC	Excellent welability. Best suited positional welding. Excellent creep resistant.
SUPER CHROMO IB 8018 B2	A5.5 :E8018-B2	≥ 490	560-720	≥20	≥60 at +20º C	DC+, AC	Ultra smooth finely rippled beed .Best in class mechanical properties
SUPER CHROMO 2B 9018 B3	A5.5 :E9018-B3	≥ 530	630-720	≥18	≥50 at +20º C	DC+, AC	Excellent welability and mechanical properties .Low X-and J-Factors
GRANT NiMo 9018-G	A5.5 :E9018-G	560	700	21	≥160 at +20º C	DC+, AC	Excellent welability, extra low hydrogen, self-peeling slag, best in class mechanical properties.
SUPER NiC-Mo 11018 –M	A5.5 :E11018-M	730	800	22	≥47 at +20º C	DC+, AC	Extra low hydrogen best in class mechanical properties, excellent welability.
STAILNESS STEEL WELDING ELECTRODE							
SUPER STAILNESS 307	A5.4 :307-16	-	>600	>35	>70 at $+20^0$ C	DC+, AC	Austenitic structure rutile type, excellent welability. Nice aspects of bead. Excellent machinability.
SUPER STAILNESS 308	A5.4 :308-16	-	610	38	>55 at $+20^0$ C	DC+, AC	Superior welability with self-peeling slag finely rippled flat bead.
SUPER STAILNESS 308 L	A 5 .4:E308L - 16	-	600	40	>55 at $+20^0$ C	DC+, AC	Ruffle basis LMA Type coating ,excellent welability exceptional weld bead.

Welding Consumable Superon

Product Name	Classification	Mechanical Properties or Weld Metal (Typical)					
	AWS /SFA	Yield Strength	Tensile Strength N/nm^2	Elongation A5 (%)	Impact Joules	Current Condition	Unique Future
SUPER STAILNESS 309	A 5 .4:E309 -16	-	620	>35	>60 at $+20^0$ C	DC+, AC	LAM Type coating, excellent welability .Exceptional weld bead.
SUPER STAILNESS 309L	A 5 .4:E309L -16	-	600	>36	>60 at $+20^0$ C	DC+, AC	Superior welability exceptional bead appearance excellent for dissimilar welding.
SUPER STAILNESS 309 MOL	A 5 .4:E309L MO -16	-	600	>35	60 at $+20^0$ C	DC+, AC	Superior welability , finely rippled bead ,self-peeling slag .Superior crack resistant
SUPER STAILNESS 310	A 5 .4:E310 -16	-	580	>35	75 at $+20^0$ C	DC+, AC	Superior welability, fully austenitic structure, scale resistant up to 1200^0 C .Hot cracking and chemical corrosion.
SUPER STAILNESS 312	A 5 .4:E312 -16	>500	>800	>25	-	DC+, AC	Superior welability, excellent crack, heat resistant and shock resistant, highest tensile strength with elongation class.
SUPER STAILNESS 316	A 5 .4:E316 -16	-	590	>36	>60 at - 20^0 C	DC+, AC	LMA Type coating, superior welability Excellent corrosion resistant.
SUPER STAILNESS 316L	A 5 .4:E316 -16	-	550	>38	>60 at - 20^0 C	DC+, AC	Spatter less superior welability .finely ripple flat bead.Excellant corrosion resistant.
SUPER STAILNESS 317 L	A 5 .4:E317 -16	-	590	>34	>50 at $+20^0$ C	DC+, AC	Excellent crevice and pitting corrosion resistant, self-peeling slag finely rippled weld bead.
SUPER STAILNESS 318	A 5 .4:E318 -16	-	590	>28	>65 at - $+20^0$ C	DC+, AC	Excellent intergranular corrosion resistant good welability, self-peeling slab.
SUPER STAILNESS 347	A 5 .4:E347-16	-	580	>36	60 at $+20^0$ C	DC+, AC	Rutile Basic LMA Type coating superior intergranular corrosion resistant.
SUPER STAILNESS DX	A 5 .4:2209-17		750	>22	60 at $+20^0$ C	DC+, AC	Duplex, excellent Intergrnaular corrosion pitting and stress corrosion resistant, self-peeling slag.

Welding Consumable Superon

SUPER STAILNESS DX(S)	A 5 .4:2594-17	-	820	>18	47 at +20^0 C	DC+, AC	Super duplex, excellent pitting and crevice corrosion resistant, smooth arc self-peeling slag.
SUPER STAILNESS 308-15	A 5 .4:308-15	-	580	>38	80 at -20^0 C	DC(+)	Basic coated spatter less superior welability Impact passes -196^{0}C
SUPER STAILNESS 309-15	A 5 .4:309-15	-	≥550	>35	60 at +20^0 C	DC(+)	Basic coated super welability best in class mechanical properties
SUPER STAILNESS 316-15	A 5 .4:316-15	-	≥570	>36	80 at -20^0 C	DC(+)	Basic coated superior welability self-peeling slag Impact passes -196^{0}C
SUPER STAILNESS 347-15	A 5 .4:347-15	-	≥570	>36	80 at -20^0 C	DC(+)	Basic coated self-peeling slag superior welability superior intergranular corrosion resistant.
CAST IRON WELDING ELECTRODES							
SUPER CAST NIFE	ENiFe-C1		>480	-	195BHN	DC+, AC	Ferro Nickel excellent for joining and repairing. Best in class machinability .Superior welability with easy slag removal.
SUPER CAST AC-45	ENiFe-C1		>500	-	210BHN	DC+, AC	Superb welability, easy slag removal, crack resistant, Good Machinability.
SUPER CAST AC-55	ENiFe-C1		>500	-	195BHN	DC+, AC	Excellent welability with easy slag removal .Highly crack resistant excellent for joining and repairing.

Welding Consumable Superon