# **Submerged Arc**

# SubCOR™ SL P9

## **Benefits:**

- maintains creep and scale resistance at temperatures up to 600°C (1110°F) for predictable component lifespan in elevated-temperature service
- nominal 9% chromium/1% molybdenum weld deposit composition is suitable for welding creepresistant steels of similar composition
- unique seamless composite wire manufacturing process provides unmatched product consistency for excellent uniformity of weld metal properties

## **Typical Applications:**

- boilers & pressure vessels
- power generation components
- chemical/petrochemical refineries
- process piping

## **Recommended Fluxes:**

SWX 150

## **Standard Diameters:**

3/32" (2.4 mm), 1/8" (3.2 mm), 5/32" (4.0 mm)

# SubCOR™ SL P91

## Benefits:

- maintains creep and scale resistance at temperatures up to 600°C (1110°F) for predictable component lifespan in elevatedtemperature service
- nominal 9% Cr/1% Mo/V weld deposit composition is suitable for welding creep-resistant steels of similar composition
- unique seamless composite wire manufacturing process provides unmatched product consistency for excellent uniformity of weld metal properties

## **Typical Applications:**

- boilers & pressure vessels
- power generation components
- chemical/petrochemical refineries
- process piping

# **Recommended Fluxes:**

SWX 150

## **Standard Diameters:**

3/32" (2.4 mm), 5/32" (4.0 mm)

# SubCOR™ SL P92

## **Benefits:**

- maintains creep and scale resistance at temperatures up to 650°C (1200°F) for predictable component lifespan in elevatedtemperature service
- nominal 9% Cr/1% Mo/W/V weld deposit composition is suitable for welding creepresistant steels of similar composition
- unique seamless composite wire manufacturing process provides unmatched product consistency for excellent uniformity of weld metal properties

### **Typical Applications:**

- boilers & pressure vessels
- power generation components
- chemical/petrochemical refineries
- process piping

# **Recommended Fluxes:**

SWX 150

# **Standard Diameters:**

3/32" (2.4 mm), 1/8" (3.2 mm) 5/32" (4.0 mm)

# SubCOR™ SL 735 1W-5W

### **Benefits:**

- specially formulated to maintain good mechanical properties when performing high dilution welds single or two-run welds using one or multiple wires
  - SubCOR SL 1W is intended for single-wire welding
  - SubCOR SL 2W, 3W, 4W, and 5W are intended for two, three, four, and five-wire welding, respectively. Use in conjunction with Hobart solid wires; only one SubCOR SL 735 wire is needed
- unique seamless composite wire manufacturing process provides unmatched product consistency for excellent uniformity of weld metal properties

# **Typical Applications:**

- pipe mills
- pipe double jointing
- pressure vessels
- heavy equipment

#### Recommended Fluxes: SWX 150

# Standard Diameters:

3/32" (2.4 mm), 5/32" (4.0 mm)

# SWX 220

# EN ISO 14174: S A AF 2 DC Benefits:

- versatile product; suitable for use with a wide range of Hobart stainless wires and stainless applications
- provides good weld appearance and wetting action into the side
- beneficial for multi-pass welding due to excellent slag removal which minimizes clean-up time and risk of inclusion
- supplied in moisture-proof packaging that eliminates the need to re-dry unopened product

## **Typical Applications:**

- joining austenitic & duplex stainless steels in similar and dissimilar combinations
- offshore & nuclear fabrication
- petrochemical industry
- chemical storage & processing
- paper & pulp processing
- food & medical equipment

### Flux Type:

Agglomerated aluminate-fluoride flux

### Basicity Index (Boniszewski): 1.9

### Alloy Transfer: None

Density: ~1.2 kg/L

Grain Size: 0.2 - 2.0 mm/ 10 - 70 mesh

Type of Current: DCEP

# **Typical Diffusible Hydrogen:** <5 mL/100g

### **Typical Composition:**

$AI_2O_3 + MnO$	~30%
CaO + MgO	~25%
$SiO_2 + TiO_2$	~20%
CaF,	~20%

### **Packaging Available**

• 55 lb. (25 kg.) EAE Bag

## **Commonly Used With:**

- SDX 308L
- SDX 347
- SDX 216L
- SDX 309L
- SDX 309LMoSDX 2209
- SDX 2209
  SDX 2594

# Submerged Arc

# SWX 305

# EN ISO 14174: S A AAS 2B DC Benefits:

- offers good bead appearance, welding characteristics, and slag removal for productive cladding with minimal part post-work
- supplied in moisture-proof packaging (EAE BAG) that eliminates the need to re-dry unopened product

# **Typical Applications:**

- **SAW cladding carbon,** low-alloy, and stainless steels with a stainless overlay
- chemical & petrochemical processing
- pulp & paper processing
- pressure vessels
- offshore & nuclear fabrication

# Flux Type:

Agglomerated acid-aluminum-silicate flux

Basicity Index (Boniszewski): 1.1

# Alloy Transfer: None

Density: ~1.1 kg/L

Grain Size: 0.2 - 2.0 mm/ 10 - 70 mesh

# Type of Current: DCEP

# **Typical Composition:**

$AI_2O_3 + MnO$	~20%
Ca0 + Mg0	~5%
SiO <sub>2</sub> + TiO <sub>2</sub>	~10%
CaF	~60%

# **Packaging Available**

• 55 lb. (25 kg.) EAE Bag

# **Commonly Used With:**

- Cromastrip 308L
- Cromastrip 316L
- Cromastrip 347

# SWX 330

# EN ISO 14174: ES A FB 2B DC Benefits:

- provides high current carrying capacity for high deposition parameters at standard speeds
- offers excellent slag removal, even on preheated surfaces
- supplied in moisture-proof packaging (EAE BAG) that eliminates the need to re-dry unopened product

# **Typical Applications:**

- electroslag (ESW) cladding carbon, low-alloy, and stainless steels with a stainless overlay
- chemical & petrochemical processing
- pulp & paper processing
- pressure vessels
- offshore & nuclear fabrication

# Flux Type:

Agglomerated fluoride-basic flux

# Basicity Index (Boniszewski): 3.8

# Alloy Transfer: None

Density: ~1.1 kg/L

Grain Size: 0.2 - 2.0 mm/ 10 - 70 mesh

Type of Current: DCEP

# Typical Composition:

$Al_2O_3 + MnO$	~25%
$SiO_2 + TiO_2$	~10%
CaF	~65%

# Packaging Available

• 55 lb. (25 kg.) EAE Bag

# **Commonly Used With:**

- Cromastrip 21.11 L
- Cromastrip 21.13.3 L
- Cromastrip 21.11 LNb

# SWX 340

# EN ISO 14174: ES A FB 2B DC Benefits:

- designed to allow high ESW travel speeds of up to 17.7 ipm (45 cm/min)
- offers a high current-carrying capacity
- provides excellent slag removal, bead contour, and bead appearance
- supplied in moisture-proof packaging that
   eliminates the need to re-dry unopened product

# **Typical Applications:**

- high-speed cladding of stainless steels using the electro-slag (ESW) process
- pressure vessels
- petrochemical industry

# Flux Type:

Agglomerated fluoride-basic flux

# Basicity Index (Boniszewski): 4.1

Alloy Transfer: None

Density: ~1.1 kg/L

Grain Size: 0.2 - 1.2 mm/ 16 - 70 mesh

Type of Current: DCEP

Typical Diffusible Hydrogen: <5 mL/100g

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# **Primary Flux Composition:**

$AI_2O_3 + MnO \dots \sim 20\%$	
CaO + MgO~5%	
SiO <sub>2</sub> + TiO <sub>2</sub> ~5%	
CaF <sub>2</sub> ~70%	

# **Packaging Available:**

55 lb. (25 kg) EAE Bag

# **Commonly Used With:**

- Cromastrip 308L
- Cromastrip 309L
- Cromastrip 309LNb
- Cromastrip 309LMo
- Cromastrip 316L
- Cromastrip 347